KVH INDUSTRIES INC \DE\
Form 10-K
March 16, 2007
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the year ended: December 31, 2006

OR

¨ TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 0-28082

KVH Industries, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**05-0420589**
(State or Other Jurisdiction of Incorporation or Organization)	**(IRS Employer Identification Number)**

50 Enterprise Center, Middletown, RI 02842

(Address of Principal Executive Offices)

(401) 847-3327

(Registrant s Telephone Number, Including Area Code)

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

Title of Each Class	**Name of Each Exchange on Which Registered**
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** x

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** x

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

Indicate by check mark 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. x

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

Large accelerated filer ¨	Accelerated filer x	Non-acceleratedfiler ¨

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

As of June 30, 2006, the aggregate market value of the registrant s common stock held by non-affiliates of the registrant was $158,457,499 based on the closing sale price of $11.66 per share as reported on the Nasdaq Global Market.

Indicate the number of shares outstanding of each of the registrant s classes of common stock.

Class	Outstanding at March 14, 2007
Common Stock, $0.01 par value per share	14,951,872 shares

DOCUMENTS INCORPORATED BY REFERENCE

Document	Parts Into Which Incorporated
Definitive Proxy Statement for the 2007 Annual Meeting of Stockholders	Part III

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PART I

ITEM 1. Business

Forward-Looking Statements

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*.

Additional Information Available

Our principal Internet address is 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 develop, manufacture and market mobile communications products for the land and marine markets and navigation, guidance and stabilization products for defense and commercial markets. Our expertise in mobile satellite antenna, digital compass and fiber optic gyro technologies has enabled us to lower the cost, decrease the size and improve the performance of our products. 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 a leading provider of mobile communications products, such as our TracVision, TracPhone and TracNet systems, that enable customers to receive live digital television, telephone and Internet services in their automobiles, recreational vehicles (RV) and marine vessels while in motion via satellite and wireless services. We sell our mobile communications products through an extensive international network of distributors and retailers worldwide.

Our defense products include tactical navigation systems that provide uninterrupted navigation and pointing information in a broad range of military vehicles, including tactical trucks (HMMWVs) and light armored vehicles. We also offer precision fiber optic gyro-based systems that

help stabilize platforms, such as gun turrets and radar units, and provide guidance for munitions. In addition, we are currently investigating opportunities to apply our mobile communications expertise to military applications that require affordable, high-bandwidth mobile connections and secure communications between vehicles. We sell our defense products directly to 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 Solutions

Mobile Communications

We believe that there is an increasing demand for mobile access to live media and information on the move. Our objective is to connect mobile users to the satellite TV, communications, and Internet services they wish to use by utilizing the best available and most appropriate data sources, such as satellite broadcasts or wireless

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service. We have developed a comprehensive family of products marketed under the TracVision, TracPhone and TracNet brand names that use a range of technologies to address the unique needs of our communications markets. Our products use sophisticated robotics, stabilization and control software, sensing technologies, 12-volt integration, and advanced antenna designs to offer the following benefits:

Consistent and reliable mobile satellite communications. Our mobile satellite communications products can 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.

Wide range of products for the mobile user. We provide mobile communications products for a variety of vehicles in the land mobile market, which includes luxury motor coaches, buses, recreational vehicles, trucks, and automobiles, as well as a variety of vessels in the marine market, which includes commercial shipping vessels, commercial fishing vessels, merchant ships, and yachts. We developed our earliest products for the luxury yacht market and have succeeded in reducing the size and cost of our products for introduction into the land market. Initially we focused on larger vehicles like motor coaches, but we subsequently added support for passenger vehicles. Our TracVision A7 brings satellite television to automobiles using a patented, low-profile antenna system that currently provides in-motion satellite television in most of the continental United States using the DIRECTV service and an in-vehicle receiver developed in collaboration with DIRECTV. Our entry into the automotive arena was facilitated by our hybrid phased-array antenna technology. We are currently investigating opportunities to transfer our commercial mobile satellite antenna technology into military applications, including small, affordable, high-bandwidth antennas suitable for military vehicles.

Access to mobile, two-way Internet, e-mail, and MSN TV communication. We currently support global broadband Internet access in the marine marketplace through the use of our TracPhone satellite communication antennas and the Inmarsat satellite services. In August 2006 we began shipping our TracNet 100 mobile Internet system suitable for cars, recreational vehicles, and boats in cooperation with Microsoft s MSN TV division. The TracNet 100 system uses evolution-data optimized (EVDO) high-speed cellular data services to provide two-way access to the Internet and the MSN TV service. EVDO is currently available in more than 240 metropolitan areas and continues to expand. Should users be outside the EVDO coverage area, a slower speed cellular service continues to provide uninterrupted accessibility. For recreational vehicles and marine vessels that may travel beyond the range of a typical EVDO antenna, we offer external, amplified antennas to increase the reception range of the mobile Internet system.

Commitment to customer support. Our Certified Support Network (CSN) offers our TracVision, TracPhone and TracNet 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.

Defense

We offer a portfolio of digital compass and fiber optic gyro-based systems that address the rigorous requirements of military customers for precision navigation, guidance and stabilization. Our systems offer:

Reliable, continuously available navigation and guidance. Our systems provide an unjammable source of reliable, easy-to-use and continuously available navigation and pointing data. For example, our TACNAV system can tell a vehicle driver in which direction to steer to reach a certain target, how much farther to the destination, and whether or not the vehicle is on course. Because our digital compass products measure the earth s magnetic field rather than detect satellite signals from the global positioning system (GPS), they are not susceptible to GPS

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jamming devices. Our fiber optic gyro-based inertial measurement unit product (IMU) enhances the accuracy of guided underwater munitions. This IMU, along with our core fiber optic technology, also has potential commercial and industrial applications.

Compatibility with a wide range of vehicles and platforms. We offer variants of our TACNAV system using both our fiber optic gyros and digital compasses, providing low-cost, integrated tactical navigation solutions for military vehicles ranging from tactical trucks to combat vehicles. TACNAV systems address the varying operational requirements of different vehicles, such as turret pointing on a tank and vehicle navigation on a combat support vehicle. We also offer several fiber optic gyro-based products that support stabilization applications, such as stabilization of turrets, optical targeting systems, radar and communication antennas in both the military and commercial markets.

Integration and aggregation of data from on-board systems. 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. We have also previously demonstrated to the U.S. Army an early prototype of a new TACNAV system that successfully combined TACNAV with satellite communication technology, potentially enabling TACNAV to communicate directly with digital battlefield management applications.

Our Products

We offer a broad array of products to address the needs of a variety of customers in the markets for mobile communications and defense navigation, guidance and stabilization.

Mobile Communications Products

Our mobile communications products include our TracVision, TracPhone and TracNet products, which offer satellite television and voice, fax, data and Internet communications to customers in the land mobile and marine markets. We began to offer both our first KVH-branded mobile satellite communications product, the TracPhone K2, and our first mobile satellite TV antenna, the TracVision, in 1995. Since that time, we have expanded our product offerings to include more than 15 different mobile satellite communications products. Our mobile satellite communications antennas are housed in impact-resistant domes to protect them from inclement weather or debris.

Land. We design, manufacture, and sell a range of TracVision satellite TV antenna systems for use on a broad array of vehicles. Our land satellite business comprises two principal vehicle classes and opportunities: automotive and RV/truck.

In the automotive market, we began offering the TracVision A7 in August 2006 as a successor to our original TracVision A5 low profile satellite TV system. 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 communications antenna and an integrated 12V mobile DIRECTV receiver designed specifically for the automotive environment by KVH and DIRECTV to convert the satellite signal into a video stream. 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 antenna s hybrid phased-array technology integrates 260 small antenna elements across a flat surface, mechanically rotates that surface horizontally and uses an electronic lens to bend the

satellite signal so that the broadcast energy strikes each of the individual elements at closer to a perpendicular angle. The separate signals from each small antenna element are then combined to create a single data stream. Automotive customers subscribe to DIRECTV s Total Choice Mobile satellite TV programming package, which is specifically promoted for automotive applications. Local channels and network

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programming are also available for the first time as an option for TracVision A7 users as a result of the system s integrated GPS and new 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.

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 R-series, offer automatic satellite switching and integrated compatibility with the international DVB (Digital Video Broadcast) standard. The 14.5-inch high in-motion TracVision R5 and stationary automatic TracVision R4, which began shipping in December 2005, use an elliptical parabolic antenna to reduce the antenna s profile to address height restrictions on the road. The in-motion TracVision R6, which began shipping in April 2006, is the flagship product of our RV-specific offerings. This new system incorporates a number of innovations, including a high-efficiency antenna that reduces the product profile to 12.5 inches high while offering reception comparable to the larger systems, integrated GPS for faster satellite acquisition, and our DewShield electronic dew elimination technology. 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.

Marine. In the marine market, we offer a range of mobile satellite TV and communications products. Our marine TracVision satellite TV antennas vary in size from a lower-profile elliptical parabolic system similar to those offered for use on RVs to 14.5 inch, 18 inch, and 24-inch diameter round antennas. Our largest marine satellite TV system is the TracVision G8, which includes a 32-inch carbon fiber antenna for greater range and efficiency. In October 2005, we introduced the TracVision M3, which has a 14.5-inch diameter antenna and which we believed to be the world s smallest stabilized marine satellite TV system. In February 2007, the TracVision M3 was replaced by three new variations on this system, including the lower-cost at anchor TracVision M2; the DIRECTV-optimized, in-motion TracVision M3 ST; and the deluxe TracVision M3 DX, which supports HDTV programming and regional satellite TV services around the globe. Historically, marine satellite TV use has generally been limited to vessels longer than 40 feet due to the size of the antennas themselves. However, with reception comparable to larger 18-inch diameter antennas, our high-efficiency TracVision M2, M3 ST, and M3 DX are designed for vessels 25 to 40 feet in length, which we believe is a largely untapped market opportunity.

Our TracPhone products provide in-motion access to global satellite communications offered by Inmarsat, a satellite service provider that supports links for phone, fax and data communications as fast as 128 Kbps, or kilobits per second. The TracPhone F77, F55 and F33 antennas use the Inmarsat Fleet 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, F55 and F33 are manufactured by Thrane & Thrane A/S of Denmark and distributed exclusively by us in North America under the KVH TracPhone label and distributed in other markets on a non-exclusive basis.

Broadband Internet and MSN TV Products. In addition to the global Internet access offered by our Inmarsat-compatible TracPhone systems, we also manufacture Internet-specific products for boats, RVs, and automobiles. Our TracNet 3.0 product provides mobile broadband Internet access in Europe, where Internet-via-satellite is a relatively common method for Internet service. TracNet 3.0 uses one of our TracVision antennas to receive broadband downloads of Internet data and either a cellular or satellite system, such as one of our TracPhone systems, as a return path.

In 2006, we entered into an agreement with Microsoft under which we serve as a distributor of the MSN TV service to the marine, RV, and automotive markets. In August 2006, we began shipping our TracNet 100 mobile

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Internet receiver with MSN TV service, which provides in-motion access to web browsing, Microsoft Windows Media Player, MSN Mail and MSN Messenger, digital photo viewing, MSN Video, and MSN Radio with two-way connections made possible by broadband EVDO cellular services. EVDO service is available in more than 240 markets nationwide, with new markets being added on an ongoing basis. Connection speeds for EVDO service are similar to residential DSL broadband service, with maximum speeds in excess of 2.4 Mbps and typical speeds of 400 Kbps to 700 Kbps. When EVDO is unavailable, the system automatically switches to standard 1xRTT data service, which is available in most cellular coverage areas. 1xRTT has a maximum upload and download speed of 144 Kbps, and typical speeds of 50 Kbps to 80 Kbps. An amplified external antenna is used to extend the range of the TracNet 100 in marine and RV applications in which the vessel or vehicle may move beyond the range of the system s integrated antenna.

The TracNet 100 also includes WiFi output to provide Internet connectivity to a wide range of WiFi-enabled products. We sell the TracNet 100 through our existing network of marine, RV, and automotive dealers.

Applying Mobile Communications Expertise to Military Applications. We are also taking steps to leverage our mobile communications expertise by transferring our proven commercial technology into mobile military applications to support high-bandwidth, two-way communication needs with a militarized, low-profile antenna system. In addition, we successfully tested a new intra-convoy communication system with the U.S. Army in late 2006. This product has the potential to serve as an affordable solution to identified gaps in U.S. military convoy operations by offering real-time status, alerts, and navigation data for all vehicles in a convoy. Additional testing is expected to take place in 2007.

Defense Products

Our defense products include digital compasses for tactical navigation, fiber optic gyros for tactical navigation and stabilization and our inertial measurement unit for precision guidance of torpedoes and unmanned aerial vehicles. 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.

Our fiber optic gyro products use an all-fiber design without moving parts, which provides precision, accuracy and durability. Fiber optic gyros can be used for precision tactical navigation systems for military vehicles for stabilizing antennas, radar, optical devices or turrets, and image stabilization and synchronization for shoulder- or tripod-mounted weapon simulators. Our fiber optic products also support a broad range of commercial and industrial applications.

Tactical Navigation. The TACNAV II Fiber Gyro Navigation system is a fiber optic gyro-based navigation and pointing system designed to support a variety of vehicle and weapons platforms. The system 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.

TACNAV TLS is a digital compass-based tactical navigation and targeting system designed for turreted vehicles, including reconnaissance vehicles, armored personnel carriers and light armored vehicles. The system offers a range of capabilities, including GPS backup and enhancement, vehicle position, hull and turret azimuth, navigation displays, and target location.

The TACNAV M100 GMENS, which is sold outside the United States under the name TACNAV Light, is a digital compass-based battlefield navigation system specifically designed for non-turreted vehicles, such as HMMWVs and trucks. We believe that customers purchase the TACNAV M100 GMENS in part because of its

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low cost relative to its performance. In September 2003, the TACNAV M100 GMENS was designated by the U.S. Special Operations Command as a standard product, and in November 2003 the German Army gave the product a similar designation. The TACNAV M100 GMENS offers a range of capabilities, including GPS backup and enhancement, vehicle position, hull azimuth and navigation displays.

Guidance and Stabilization. Our TG-6000 Inertial Measurement Unit, introduced in October 2003, 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 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.

Our open-loop DSP-3000 and DSP-4000 fiber optic gyros provide tactical-grade precision measurement of the rate and angle of a platform s turning motion for significantly less cost than competing closed-loop gyros. These products use digital signal processing, or DSP, technology to 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 is slightly larger than a deck of cards. 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 System (CROWS). Two DSP-3000 gyros are installed in every CROWS turret and provide the image and gun stabilization necessary to ensure that the weapon remains aimed at its target. The larger, militarized DSP-4000 uses the core DSP-3000 technology in both 1- and 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.

Sales and Marketing

We sell our mobile satellite communications products through an international network of independent retailers, chain stores and distributors, as well as to manufacturers of marine vessels and recreational vehicles. We currently market and sell the TracVision A7 in the continental United States through consumer electronic chain stores and a large number of retailers specializing in automotive electronics, as well as a variety of specialty distributors of automotive after-market products and auto dealership expediters. We intend to continue the consideration of opportunities to expand our distribution network to include additional retailers and distributors in the continental United States. We are also pursuing arrangements with automobile manufacturers to include our TracVision A7 product as optional or standard equipment on the vehicles they manufacture.

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

We sell our defense 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 $5.6 million on December 31, 2006, $9.5 million on December 31, 2005, and $8.7 million on December 31, 2004.

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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 defense 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 50 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 August 2007 and January 2024. 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.

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. A description of such claims initiated against us and currently pending is found in this annual report under the heading Item 3. Legal Proceedings . 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.

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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 recreational vehicle markets, we compete primarily with King Controls, 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. 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 marine market for satellite TV communications equipment, we compete primarily with NaviSystem Marine Electronics Systems Srl, King Controls, Sea Tel, Inc., and Raymarine. In the marine market for telephone, fax, data and Internet communications equipment and services, we compete with Furuno Electric Co., Ltd., Globalstar LP, Iridium Satellite LLC, and Japan Radio Company. We also may face additional competition from emerging marine satellite data services and maritime VSAT solutions.

We serve as a distributor of the MSN TV service to the marine, automotive, and recreational vehicle markets and as such, offer what we believe is a unique mobile Internet solution. Our TracNet 100 mobile Internet system with MSN TV service competes with such products as single-user EVDO cards for use with individual laptops; EVDO/WiFi hubs such as those manufactured by Kyocera and Top Global; proposed WiMAX services in urban areas, and Internet-via-satellite systems such as Inmarsat, Iridium Satellite LLC, Globalstar LP and maritime VSAT.

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.

In the defense navigation, guidance and stabilization markets, we compete primarily with Honeywell International Inc., Kearfott Guidance & Navigation Corporation, Leica Microsystems AG, Northrop Grumman Corporation and Smiths Group plc. 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

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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, 2006, we employed 311 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.

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

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.

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

Although we generated net income during 2005 and 2006, and in twelve of the last sixteen fiscal quarters, we incurred net losses of $6.1 million in 2004 and at times our profitability has fluctuated significantly on both a sequential and comparable quarter-to-quarter basis during 2005 and 2006. As of December 31, 2006, we had an accumulated deficit of $10.8 million.

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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 defense products. During 2006, sales of our defense products grew at a substantially lower rate than our overall sales growth, resulting in a small decline in our overall gross margin compared with 2005. Although sales of defense products in each of 2006 and 2005 were slightly higher than the prior year, during 2004, sales of our defense products declined compared to 2003. 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 defense 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. To remain competitive, we must enhance our existing products and develop new products, and we may have to reduce the prices of our products. Moreover, new competitors may emerge, and entire product lines may be threatened by new technologies or market trends that reduce the value of those product lines. For example, improvements in less expensive wireless and cellular technologies may limit demand for land-based satellite telephone and Internet services. Likewise, emerging services like BGAN and maritime VSAT may be disruptive to existing marine Internet, data, and communication services that we currently support.

In the defense navigation, guidance and stabilization markets, we compete primarily with Honeywell International Inc., Kearfott Guidance & Navigation Corporation, Leica Microsystems AG, Northrop Grumman Corporation and Smiths Group plc.

In the market for mobile satellite communications products, we compete with a variety of companies. In the land mobile market for satellite TV communications equipment, we compete directly with King Controls, MotoSAT, TracStar Systems, Inc., and Winegard Company. There is also potential competition for sales of satellite TV to the automotive market from RaySat, Audiovox, Sirius Satellite Radio, Winegard, and Delphi.

In the marine market for satellite TV communications equipment, we compete with NaviSystem Marine Electronic Systems Srl, King Controls, Sea Tel, Inc., and Raymarine. In the marine market for telephone, fax, data and Internet communications equipment, we compete with Furuno Electric Co., Ltd., Globalstar LP, Iridium Satellite LLC, and Japan Radio Company.

In the mobile Internet market, we may compete with such products as single-user EVDO cards for use with individual laptops; EVDO/WiFi hubs such as those manufactured by Kyocera and Top Global; proposed WiMAX services in urban areas; and Internet-via-satellite systems proposed by companies such as RaySat. Moreover, new competitors may surface in the future. 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 or price reductions by competitors may weaken customer acceptance of 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.

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Customers for TACNAV and our other defense products include the U.S. military and foreign governments, whose purchasing and delivery schedules and priorities can be unpredictable.

We sell TACNAV and our other defense products to the U.S. military and foreign military and government customers. These customers have unique purchasing and delivery requirements, which can make 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;
- 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.

These factors can cause substantial fluctuations in sales of TACNAV and our other defense products from period to period. For example, sales of our TACNAV products declined in the third and fourth quarter of 2006, compared with sales in the comparable periods of 2005. Moreover, TACNAV and most of our other defense products must meet military quality standards, and our products may not continue to meet existing standards or more rigorous standards adopted in the future. Any failure to meet military contract specifications may produce delays as we attempt to improve our design, development, manufacturing or quality control processes. Furthermore, 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 TACNAV and our other defense products generally consist of a few large orders, and the delay or cancellation of a single order could substantially reduce our net sales.

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

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

We derive a significant portion of our defense 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.

The market for our mobile TV products for minivans, SUVs and other passenger vehicles is still emerging, and our business may not grow as we expect.

The market for our low profile automotive TracVision product is still in the early stage of development, which continues to make it difficult for us to predict customer demand accurately. For example, although sales of the TracVision grew between 2004 and the end of 2006, the sales trend has been below our original expectations.

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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;
- the extent to which high fuel prices and environmental concerns may negatively affect consumer demand for SUVs and other large passenger vehicles;
- difficulties or inconveniences associated with scheduling installation at the point of sale;
- customers willingness to pay monthly fees for satellite television service in automobiles;
- the adoption of laws or regulations that restrict or ban television or other video technology in vehicles;
- poor performance arising from improper installation or installation of damaged equipment; and
- our limited experience with marketing products to the automotive market, which is substantially larger and more fragmented than our other markets.

The market for mobile Internet services in vehicles and vessels may fail to develop or may be satisfied by alternative technological approaches.

Mobile Internet access is a market that is currently focused primarily on cell phones and Internet-enabled PDAs. We serve as a distributor of the MSN TV service to the marine, automotive, and RV markets and offer what we believe is a unique mobile Internet solution. Competing products based around high-speed cellular services are available for single users and in integrated EVDO/WiFi hubs. Other technologies, such as proposed WiMAX networks and Internet-via-satellite options, such as BGAN and maritime VSAT services, may also displace competing wireless services with regard to range and cost, preventing us from successfully marketing and selling mobile Internet systems in the mobile marketplace.

We depend on others to provide programming for our TracVision products, and the loss of programming could substantially reduce our sales.

Our TracVision products include only the equipment necessary to receive satellite television services; we do not broadcast satellite television programming. Instead, customers must obtain programming from another source. We currently offer marine and land mobile TracVision products compatible with the DIRECTV and DISH Network services in the United States, the ExpressVu service in Canada, Sky Mexico and various other regional services in other parts of the world. Our low profile automotive TracVision products currently offer access to only the DIRECTV service in the continental United States. Although DIRECTV is offering its Total Choice Mobile programming package at a price that we think should be attractive to consumers, DIRECTV has no obligation to continue to offer that package at the current price or at all. If customers become dissatisfied with the programming, pricing, service, availability or other aspects of any of these satellite television 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 TracVision products. The companies that operate these services have no obligation to inform us of technological or other changes, including discontinuation of the service, which could impair the performance of our TracVision products.

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Our TracPhone and TracNet 3.0 products currently depend on satellite services provided by third parties, and any disruption in those services could adversely affect sales.

We rely on Inmarsat for satellite communications services for our TracPhone products. We rely on Telemar for TracNet 3.0 service in Europe.

Our TracNet 100 mobile Internet system uses high-speed EVDO cellular services offered by Verizon Wireless as well as Microsoft s MSN TV service. Should EVDO networks become unavailable, our TracNet 100 would be hampered in its ability to provide two-way Internet access. Likewise, if the status of MSN TV were to change, customers would no longer be able to access the Internet via the TV screens in their boats, RVs, and cars, a feature that offers KVH a competitive advantage over other mobile Internet solutions.

If any of our vendors were unable to fulfill their obligations, we would need to seek alternate suppliers or solutions. In that case, we may be required to retrofit or upgrade hardware and software as necessary to ensure the continued operation of the affected products. We may incur significant delays and expenses in our efforts to make the necessary changes, and those efforts may be unsuccessful. Moreover, we may not be successful in identifying and entering into appropriate agreements with replacement suppliers on commercially reasonable terms, which would impair our ability to offer the affected products. Similarly, we may lose the goodwill of existing customers if any currently installed products cease to work for any extended period. Any such outcome could lead to a substantial reduction in sales.

Our mobile communications products depend on the availability of third-party satellites, which face significant operational risks and could fail earlier than their expected useful lives.

Our mobile communications products depend on the availability of programming and services broadcast through satellites owned by third parties. 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. These satellites face significant operational risks during launch and while in orbit. These risks include launch failures, malfunctions that can occur as a result of satellite manufacturing errors, problems with power or control systems and general failures resulting from the harsh space environment. Moreover, each satellite has a limited useful life, and the satellite providers make no guarantees that the planned backup systems and capacity will be sufficient to support these satellite services in the event of a loss or reduction of service. We cannot assure that satellite services compatible with our products will continue to be available or that such services will continue to be offered at reasonable rates. The accuracy or availability of satellite signals may also be limited by ionospheric or other atmospheric conditions, intentional or inadvertent signal interference or intentional limitations on signal availability imposed by the satellite provider. A reduction in the number of operating satellites on any system, the inoperability of any key satellite or the failure of any key satellite or satellites to provide an accurate or available signal could impair the utility of our products or the growth of current and additional market opportunities.

High fuel prices and environmental concerns may adversely affect sales of our mobile communications products.

Fuel prices have been high and may remain high or increase in the foreseeable future. High fuel prices and environmental concerns tend to have a disproportionate impact on the larger vehicles and vessels for which our mobile communications products are designed, such as marine vessels, recreational vehicles and SUVs, because they consume relatively large quantities of fuel. We believe that the increased cost of operating these vehicles and vessels and environmental concerns have likely had an adverse effect on and may continue to adversely affect, demand for our mobile communications products.

Our effort to enter the automotive OEM market for embedded and factory-installed mobile satellite TV products may not be successful.

During 2005, we announced that we intend to support factory installation of an embedded version of our low profile TracVision mobile satellite TV antenna for automobiles. In addition, it has been our intent to develop an automotive satellite TV system designed to be integrated within the roof of a vehicle during the OEM

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manufacturing process. The timetable for potential OEM acceptance of an embedded or factory-installed system is uncertain, however, and our efforts to enter this market may not be successful. In particular, we must take into account roof and headliner designs, space and weight constraints, environmental requirements, performance standards, and OEM price requirements, and we may encounter unanticipated difficulties in designing antennas that will satisfy all of the unique requirements of various vehicle configurations. Because different vehicles may require different designs, our manufacturing efficiency for these embedded or factory-installed antennas may be lower and we may generate lower margins than for the aftermarket version of the low profile TracVision. In addition, our success in entering this market will depend in part on the close cooperation of vehicle manufacturers, and we cannot be certain that we will obtain the necessary cooperation. The expenses we expect to incur in pursuing this market may have an adverse effect on our results of operations.

We expect that others will introduce competing mobile satellite TV antennas and technologies for automobiles.

When we began shipping our original low profile TracVision A5 in September 2003, it was the only commercially available, mobile satellite TV antenna for use on minivans, SUVs and other passenger vehicles. Any advantage we may have had by being the first to market such a product may erode as others enter this market. We are aware of announcements made by other companies of their intent to offer competing satellite TV or recorded video content to automobiles, but to date we have no knowledge of any such products in production and available for retail sale. Competing satellite antenna products may have a slightly lower profile, and customers may delay purchasing our low profile TracVision in anticipation of the release of any of these products. Competition from any of these products could impair our ability to sell the new low profile TracVision A7 and may force us to reduce the price of the product. The availability of pre-recorded video content via personal devices such as the iPod or embedded digital hard drives with downloadable content may also limit demand for live content in vehicles.

We must achieve additional significant cost reductions for our low profile TracVision to reach our targeted profit margins.

Our product profit margins for our low profile TracVision automotive system have been low since its introduction. Although we have had success in improving profit margins since the introduction of the low profile TracVision in September 2003, we may be unable to achieve the additional cost reductions necessary to achieve our overall target profit margins. Although our cost reduction programs include obtaining volume purchasing discounts, sourcing of components from off-shore suppliers and redesigning certain components using lower cost materials and processes, technological or other challenges may prevent us from achieving all of the necessary cost reductions. Moreover, if the price of the low profile automotive TracVision is not attractive to a broad range of customers, we may be forced to further lower the price, which would further impair our product profit margins unless we are able to achieve corresponding cost reductions.

We may fail to continue to increase the sale of our fiber optic products for commercial uses.

Our fiber optic products have numerous commercial applications where mobile communication, navigation, stabilization and precision pointing are required. For example, our fiber optic gyros have been used in commercial applications such as train location control and track geometry measurement systems, industrial robotics, and autonomous or remotely operated vehicles. We may not be successful in further developing and marketing our fiber optic products for commercial uses, which might limit the overall net sales of these products and limit our profitability accordingly.

We may continue to increase the international scope of our 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 improve our operating margin performance and overall profitability, we have found it desirable to increase the international scope of our operations. This includes the increased sourcing of raw materials and manufactured components from foreign countries such as China. We have only limited experience

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in foreign manufacturing, and we might not be successful in implementing or integrating an extended program. In addition, 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 will have a material adverse affect on our operations and financial performance.

We depend on single manufacturing lines for our products, and any significant disruption in production could impair our ability to deliver our products.

We currently manufacture and assemble our products using individual production lines for each product category. We have experienced manufacturing difficulties in the past, and any significant disruption to one of these production lines will require time either to reconfigure and equip an alternative production line or to restore the original line to full capacity. Some of our production processes are complex, and we may be unable to respond rapidly to the loss of the use of any production line. For example, our production process uses some specialized equipment and custom molds that may take time to replace if they malfunction. 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. 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. We do not generally 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 increase the number of our distribution relationships, it could significantly reduce or limit our net 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. Moreover, our distributors may operate on low product margins and could give h