

TRIMBLE NAVIGATION LTD /CA/  
Form 10-K  
March 03, 2009

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

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES  
EXCHANGE ACT OF 1934  
For the fiscal year ended January 2, 2009

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: 001-14845

TRIMBLE NAVIGATION LIMITED  
(Exact name of Registrant as specified in its charter)

California  
(State or other jurisdiction of incorporation or  
organization)

94-2802192  
(I.R.S. Employer Identification No.)

935 Stewart Drive, Sunnyvale, CA  
(Address of principal executive offices)

94085  
(Zip Code)

Registrant's telephone number, including area code: (408) 481-8000  
Securities registered pursuant to Section 12(b) of the Act:

Title of each class (Title of Class)	Name of each exchange on which stock registered
Common Stock	NASDAQ Global Select Market
Preferred Share Purchase Rights	NASDAQ Global Select 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

Edgar Filing: TRIMBLE NAVIGATION LTD /CA/ - Form 10-K

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. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer.

Large Accelerated Filer  Accelerated Filer   
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 27, 2008, the aggregate market value of the Common Stock held by non-affiliates of the registrant was approximately \$4.4 billion based on the closing price as reported on the NASDAQ Global Select Market.

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

Class	Outstanding at February 27, 2009
Common stock, no par value	119,093,006 shares

---

---

---

DOCUMENTS INCORPORATED BY REFERENCE

Certain parts of Trimble Navigation Limited's Proxy Statement relating to the annual meeting of stockholders to be held on May 19, 2009 (the "Proxy Statement") are incorporated by reference into Part III of this Annual Report on Form 10-K.

SPECIAL NOTE ON FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, which are subject to the "safe harbor" created by those sections. The forward-looking statements regarding future events and the future results of Trimble Navigation Limited ("Trimble" or "the Company" or "we" or "our" or "us") are based on current expectations, estimates, forecasts, and projections about the industries in which Trimble operates and the beliefs and assumptions of the management of Trimble. Discussions containing such forward-looking statements may be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations." In some cases, forward-looking statements can be identified by terminology such as "may," "will," "should," "could," "predicts," "potential," "continue," "expects," "anticipates," "future," "intends," "plans," "believes," "estimates," and similar expressions. These forward-looking statements involve certain risks and uncertainties that could cause actual results, levels of activity, performance, achievements and events to differ materially from those implied by such forward-looking statements, but are not limited to those discussed in this Report under the section entitled "Risk Factors" and elsewhere, and in other reports Trimble files with the Securities and Exchange Commission ("SEC"), specifically the most recent reports on Form 8-K and Form 10-Q, each as it may be amended from time to time. These forward-looking statements are made as of the date of this Annual Report on Form 10-K. We reserve the right to update these statements for any reason, including the occurrence of material events. The risks and uncertainties under the caption "Risks and Uncertainties" contained herein, among other things, should be considered in evaluating our prospects and future financial performance. We have attempted to identify forward-looking statements in this report by placing an asterisk (\*) before paragraphs containing such material.

## TRIMBLE NAVIGATION LIMITED

## 2008 FORM 10-K ANNUAL REPORT

## TABLE OF CONTENTS

PART I		
Item 1	<u>Business</u>	5
Item 1A	<u>Risk Factors</u>	17
Item 1B	<u>Unresolved Staff Comments</u>	23
Item 2	<u>Properties</u>	23
Item 3	<u>Legal Proceedings</u>	23
Item 4	<u>Submission of Matters to a Vote of Security Holders</u>	24
PART II		
Item 5	<u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	24
Item 6	<u>Selected Financial Data</u>	26
Item 7	<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	27
Item 7A	<u>Quantitative and Qualitative Disclosures about Market Risk</u>	44
Item 8	<u>Financial Statements and Supplementary Data</u>	46
Item 9	<u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	87
Item 9A	<u>Controls and Procedures</u>	87
Item 9B	<u>Other Information</u>	87
PART III		
Item 10	<u>Directors, Executive Officers, and Corporate Governance</u>	88
Item 11	<u>Executive Compensation</u>	88
Item 12	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	88
Item 13	<u>Certain Relationships, Related Transactions, and Director Independence</u>	88
Item 14	<u>Principal Accountant Fees and Services</u>	88
PART IV		
Item 15	<u>Exhibits and Financial Statement Schedules</u>	89

## TRADEMARKS

Trimble, EZ-Guide, EZ-Boom, EZ-Steer, Proliance, UtilityCenter, TrimWeb, TrimView, GeoManager, Taskforce, Juno, GeoExplorer, AgGPS, Spectra Precision, Autopilot, Fieldport, Copernicus, TrimTrac, EZ-Steer, PocketCitation, Trimble Outdoors, Force, BlueOx, EZ-Office, VX, Vision, VRS, VRSNow, FastMap, Geosite, Coastal Center, NetR8, FineLock, R-Track, Agriculture Manager, Thunderbolt and Connected Site, among others are trademarks of Trimble Navigation Limited and its subsidiaries. All other trademarks are the property of their respective owners.

Table of Contents

PART I

Item 1. Business

Trimble Navigation Limited, a California corporation (“Trimble” or “the Company” or “we” or “our” or “us”), provides advanced positioning product solutions, typically to commercial and government users. The principal application areas include surveying, agriculture, construction, asset management, mapping and mobile resource management. Our products provide benefits that can include lower operational costs, higher productivity, and improved quality. Product examples include agricultural and construction equipment, guidance systems, surveying instruments, systems that track fleets of vehicles, and data collection systems that enable the management of large amounts of geo-referenced information. In addition, we also manufacture components for in-vehicle navigation and telematics systems, and timing modules used in the synchronization of wireless networks.

Our products often combine knowledge of location or position with a wireless link to provide a solution for a specific application. Position is provided through a number of technologies including the Global Positioning System, or GPS, and systems that use laser or optical technologies to establish position. Wireless communication techniques include both public networks, such as cellular, and private networks, such as business band radio. Some of our products are augmented by our software; this includes embedded firmware that enables the positioning solution and application software that allows the customer to make use of the positioning information.

We design and market our own products. Our manufacturing strategy includes a combination of in-house assembly and third party subcontractors. Our global operations include major development, manufacturing or logistics operations in the United States, Sweden, Germany, New Zealand, France, Canada, the United Kingdom, the Netherlands, China, and India. Products are sold through dealers, representatives, joint ventures, and other channels throughout the world. These channels are supported by our sales offices located in 17 countries.

We began operations in 1978 and incorporated in California in 1981. Our common stock has been publicly traded on NASDAQ since 1990 under the symbol TRMB.

On January 17, 2007, our board of directors approved a 2-for-1 split of all outstanding shares of the Company’s Common Stock, payable February 22, 2007 to stockholders of record on February 8, 2007. All shares and per share information presented have been adjusted to reflect the stock split on a retroactive basis for all periods presented.

Technology Overview

A significant portion of our revenue is derived from applying Global Navigation Satellite System, or GNSS, technology to terrestrial applications. The GNSS includes the network of 24 orbiting U.S. Global Positioning System, or GPS, radio navigation satellites and associated ground control that is funded and maintained by the U.S. Government and is available worldwide free of direct user fees, and the Russian GLONASS radio navigation satellite system. Both the European Community and China have announced plans to establish future operational radio navigation satellite systems. GNSS positioning is based on a technique that precisely measures distances from four or more satellites. The satellites continuously transmit precisely timed radio signals using extremely accurate atomic clocks. A GNSS receiver measures distances from the satellites in view by determining the travel time of a signal from the satellite to the receiver, and then uses those distances to compute its position. Under normal circumstances, a stand-alone GNSS receiver is able to calculate its position at any point on earth, in the earth’s atmosphere, or in lower earth orbit, to approximately 10 meters, 24 hours a day. Much better accuracies are possible through a technique called “differential GNSS.” In addition to providing position, GNSS provides extremely accurate time measurement.

GNSS accuracy is dependent upon the locations of the receiver and the number of GNSS satellites that are above the horizon at any given time. Reception of GNSS signals requires line-of-sight visibility between the satellites and the receiver, which can be blocked by buildings, hills, and dense foliage. The receiver must have a line of sight to at least four satellites to determine its latitude, longitude, and time. The accuracy of GNSS may also be limited by distortion of GNSS signals from ionospheric and other atmospheric conditions.

Our GNSS products are based on proprietary receiver technology. Over time, the advances in positioning, wireless communications, and information technologies have enabled us to add more capability to our products and thereby deliver more value to our users. For example, the developments in wireless technology and deployments of next generation wireless networks have enabled less expensive wireless communications. These developments provide the efficient transfer of position data to locations away from the positioning field device, allowing the data to be accessed by more users, thereby increasing productivity. This allows us to integrate visualization and design software into some of our systems, as well as offer positioning services, all of which make our customers more efficient at what they do.

## Table of Contents

Our laser and optical products either measure distances and angles to provide a position in three dimensional space or are used as highly accurate laser references from which a position can be established. The key elements of these products are typically a laser, which is generally a commercially available laser diode, and a complex mechanical assembly. These elements are augmented by software algorithms to provide measurements and application-specific solutions.

### Business Strategy

Our business strategy is developed around an analysis of several key elements:

- Attractive markets – We focus on underserved markets that offer potential for revenue growth, profitability, and market leadership.
- Innovative solutions that provide significant benefits to our customers – We seek to apply our technology to applications in which position data is important and where we can create unique value by enabling enhanced productivity in the field or field to back office. We look for opportunities in which the rate of technological change is high and which have a requirement for the integration of multiple technologies into a solution.
- Distribution channels to best access our markets – We select distribution channels that best serve the needs of individual markets. These channels can include independent dealers, direct sales, joint ventures, OEM sales, and distribution alliances with key partners. We view international expansion as an important element of our strategy and seek to develop international channels.

### Business Segments and Markets

We are organized into four reporting segments encompassing our various applications and product lines: Engineering and Construction, Field Solutions, Mobile Solutions and Advanced Devices. Our segments are distinguished by the markets they serve. Each segment consists of businesses which are responsible for product development, marketing, sales, strategy, and financial performance.

#### Engineering and Construction

Products in the Engineering and Construction segment improve productivity and accuracy throughout the entire construction process including the initial survey, planning, design, site preparation, and building phases. Our products are intended to both improve the productivity of each phase, as well as facilitate the entire process by improving information flow from one phase to the next.

The product solutions typically include multiple technologies. The elements of these solutions may incorporate GPS, optical, laser, radio, or cellular communications.

An example of the customer benefits provided by our products is our GPS and robotic optical surveying instruments which enable the surveyor to perform operations in the field faster, more reliably than conventional surveying instruments and with a smaller crew. Similarly, our construction machine guidance products allow the operator to achieve the desired landform while eliminating stakeout and reducing rework. These steps in the construction process can be readily linked together with data collection modules to minimize the time and effort required to maintain data accuracy throughout the entire construction process.

We sell and distribute our products in this segment through a global network of independent dealers that are supported by Trimble personnel. This channel is supplemented by relationships that create additional channel breadth including



our joint ventures with Caterpillar and Nikon, as well as private branding arrangements with other companies.

6

---

## Table of Contents

We also design and market handheld data collectors and data collection software for field use by surveyors, contractors, and other professionals. These products are sold directly through dealers and other survey manufacturers.

Competitors in this segment are typically companies that provide optical, laser, or GPS positioning products. Our principal competitors are Topcon Corporation, and Leica Geosystems, Inc. Price points in this segment range from less than \$1,000 for certain laser systems to approximately \$100,000 for a high-precision, three-dimensional, machine control system.

Representative products sold in this segment include:

**Trimble S8 Total Station** – Our S8 Total Station is our most advanced optical instrument designed to deliver unsurpassed performance for both typical surveying and specialized engineering applications such as monitoring and tunneling. It features Trimble FineLock™ technology, a smart tracker sensor with a narrow field of view that enables the Trimble S8 to detect a target without interference from surrounding prisms. Our S8 combined with our 4D Control software creates a powerful solution for real-time and post-processed monitoring of permanent structures such as dams, short-term construction activities, and side slopes in mines.

**Trimble I.S. Rover** – Our I.S. Rover combines GNSS and optical data collection on a rover pole, enabling surveyors to harness the unique strengths of both technologies. With it, surveyors can increase flexibility and save time by seamlessly switching between technologies to adapt to local jobsite conditions as well as independently verify measurements for quality control. Our I.S. Rover is a unique patented Trimble solution that offers land surveyors increased efficiency, flexibility and versatility.

**Trimble R8 GNSS System** – Our R8 GNSS System is a multi-channel, multi-frequency, Global Navigation Satellite System (GNSS) receiver, antenna, and data-link radio combined in one compact unit. It features Trimble R-Track™ technology, powered by the most advanced RTK engine in the industry, supporting all GPS signals, including GPS Modernization (L2C signal and L5 signals) as well as GLONASS. Our R8 GNSS combines advanced receiver technology and a proven system design to provide maximum accuracy and productivity for a variety of surveying applications.

**Trimble VX Spatial Station** – Our Trimble VX™ Spatial Station is an advanced spatial imaging system that combines optical, 3D scanning, and video capabilities—Trimble VISION™ technology—to measure objects in 3D to produce 2D and 3D data sets for spatial imaging projects. It enables users to blend extremely accurate ground-based information with airborne data to provide comprehensive datasets for use in the geospatial information industry. An entry-level model of our VX Spatial Station offers integrated imaging and surveying functionality only, with a scalable upgrade to 3D scanning.

**SPS Site Positioning Solutions** – The Trimble Site Positioning Solutions family increases the productivity of construction professionals and supervisors during site preparation, layout and grade checking by simplifying workflows, eliminating unnecessary steps, and providing intelligent data management between the field and the office, creating time savings by providing data updates to all members of the team.

**GCS Family of Grade Control Systems** – Grade control systems meet construction contractors' needs with productivity-enhancing solutions for earthmoving, site prep, and roadwork. Our GCS family provides upgrade options that deliver earthmoving contractors the flexibility to select a system that meets their daily needs today, and later add on to meet their changing needs. For example, a single control system such as the GCS300 can provide for low-cost point of entry into grade control, and over time can be upgraded to the GCS400 dual sensor system or to the full 3D GCS900 Grade Control System.

Spectra Precision Laser Portable Tools – Our Spectra Precision® Laser family includes a broad range of laser based tools for the interior, drywall and ceilings, HVAC, and mechanical contractor. Designed to replace traditional methods of measurement and leveling for a wide range of interior construction applications, our laser tools are easy to learn and use. Our Spectra Precision Laser product portfolio includes rotating lasers for horizontal leveling and vertical alignment, as well as laser pointers and a laser based distance measuring device. They are available through independent and national construction supply houses both in the U.S. and in Europe.

Proliance Software – Proliance® Software allows infrastructure-intensive organizations to optimize the Plan-Build-Operate project lifecycle for complex capital projects, construction and real estate programs, and extensive facility portfolios. Our Proliance Software was designed for large building owner/operators, real estate developers, and engineering-driven organizations managing \$250 million or more annually in new project construction or facility renovations.

## Table of Contents

GeoSpatial Solutions – Our GeoSpatial Solutions family enables mobile mapping companies to capture georeferenced data, extract features and attributes, and analyze conditions and change, thereby generating information to better manage assets and operations. Aerial LIDAR / Imaging Systems and vehicle-based asset inventory systems, combined with powerful photogrammetry software, generate high accuracy as-built drawings for the transportation, and utilities and energy transmission and distribution industries.

### Field Solutions

Our Field Solutions segment addresses the agriculture and geographic information system (GIS) markets.

Our agriculture products consist of manual and automated navigation guidance for tractors and other farm equipment used in spraying, planting, cultivation, and harvesting applications. The benefits to the farmer include faster machine operation, higher yields, and lower consumption of chemicals than conventional equipment. We also provide positioning solutions for leveling agricultural fields in irrigation applications and aligning drainage systems to better manage water flow in fields. We also provide solutions to automate applications of pesticide and seeding.

We use multiple distribution channels to access the agricultural market, including independent dealers and partners such as CNH Global. Competitors in this market are either vertically integrated implement companies such as John Deere, or agricultural instrumentation suppliers such as Raven, Hemisphere GPS and Novariant.

Our GIS product line is centered on handheld data collectors that gather information in the field to be incorporated into GIS databases. Typically this information includes features, attributes, and positions of fixed infrastructure and natural resource assets. An example would be a utility company performing a survey of its transmission poles including the age and condition of each telephone pole. Our handheld unit enables this data to be collected and automatically stored while confirming the location of the asset. The data can then be downloaded into a GIS database. This stored data could later be used to navigate back to any individual asset or item for maintenance or data update. Our mobile GIS initiative goes one step further by allowing this information to be communicated from the field worker to the back-office GIS database through the combination of wireless technologies, as well as giving the field worker the ability to download information from the database. This capability provides significant advantages to users including improved productivity, accuracy, and access to the information in the field.

Our Utilities Field Solutions product line is focused on integrated field and back office software solutions for managing utility mobile workers and their field work activities, including asset maintenance, GIS mapping, outage response, and automated vehicle locating (AVL). Our software is typically installed on a server and on mobile computers that are used by utility field workers for conducting routine and emergency work, locating and mapping infrastructure, and performing utility asset maintenance, inspection, and field service. Through the use of GIS and location-based technologies combined with mobile and wireless communications, our products connect utility field workers to the office. Typically our products automate existing manual and paper based processes and are implemented to meet utility regulatory requirements, improve efficiency and reduce costs, and improve customer service and response.

Distribution for GIS products is primarily through a network of independent dealers and business partners, supported by Trimble personnel. Primary markets for our GIS products and solutions include both governmental and commercial users. Users are most often municipal governments and natural resource agencies. Commercial users include utility companies. Competitors in this market are typically survey instrument companies utilizing GPS technology such as Topcon and Thales.

Sales and distribution of both our Fieldport® and UtilityCenter® software solutions are direct to the customer. Installation of both solutions generally involves a degree of integration and professional services. Primary

markets include government and commercial electric, gas, water and wastewater utilities. Competitors are typically utility industry GIS software and service companies.

Approximate product price points in this segment range from \$1,000 for a GIS handheld unit to \$35,000 for a fully automated, farm equipment control system.

8

---

## Table of Contents

Representative products sold within this segment include:

**AgGPS EZ-Guide 500** – Our AgGPS EZ-Guide 500 is a lightbar guidance system with a color LCD display, data logging functions and multiple accuracy options. Lightbar systems provide GPS-based guidance for vehicle operators to steer tractors, sprayers, fertilizer applicators, air seeders, and large tillage tools that require consistent pass-to-pass accuracy to help save fuel, increase efficiency, and reduce input costs for agricultural operations.

**AgGPS EZ-Boom 2010** – Our AgGPS® EZ-Boom® 2010 automated application control system is designed to help growers cut input costs and reduce operator fatigue by providing precise automatic control of field spraying applications. It works with our AgGPS EZ-Guide® Plus lightbar guidance system, AgGPS EZ-Steer® assisted steering system, or the AgGPS Autopilot™ automated steering system.

**AgGPS Autopilot System** – Our GPS-enabled, agricultural navigation system connects to a tractor's steering system and automatically steers the tractor along a precise path to within three centimeters or less. This enables both higher machine productivity and more precise application of seed and chemicals, thereby reducing costs to the farmer.

**AgGPS EZ-Steer System** – Our value added assisted steering system, when combined with our EZ-Guide Plus system, automatically steers agricultural vehicles along a path within 20 centimeters or less. This system installs in less than thirty minutes and is designed to reduce gaps and overlaps in spraying, fertilizing, and other field applications, as well as reduce operator fatigue.

**Juno Series** – Our Juno family includes compact and cost-effective GPS handhelds designed to equip an entire workforce for data collection and fieldwork. The handhelds have a high-sensitivity GPS receiver, Bluetooth and Wireless LAN technology, a built-in 3 Megapixel digital camera, a MicroSD/SDHC storage slot and an optional 3.5G broadband cellular modem for wireless data communications.

**GeoExplorer 2008 Series** – Our GeoExplorer family combines a GPS receiver in a rugged handheld unit running industry standard Microsoft Windows Mobile version 6.0, making it easy to collect and maintain data about objects in the field. The GeoExplorer® series features three models ranging in accuracy from a decimeter to 1-3 meters, thereby allowing the user to select the system most appropriate for their data collection and maintenance needs.

**Fieldport Software** – Our Fieldport Software focuses on automating field service processes, operational efficiency and profitability for water and wastewater utility customers.

**UtilityCenter Software** – Our UtilityCenter Software is a GIS-based enterprise suite of modules oriented towards the electric and gas utilities market. Modules include Outage Management (OMS), Mobile Asset Management, Data Collection, Staking, Network Tracing & Isolation and Field-based Editing.

## Mobile Solutions

Our Mobile Solutions segment provides both hardware and software applications for managing mobile work, mobile workers and mobile assets. The software is provided in both a client server model or web-based. Our software is provided through our hosted platform for a monthly subscription service fee or as a perpetual license with annual maintenance and support fees.

Our vehicle solutions typically include an onboard proprietary hardware device consisting of a GPS receiver, business logic, sensor interface, and a wireless modem. Our solution usually includes the communication service from/to the vehicle to our data center and access over the internet to the application software.

Our mobile worker solutions include a rugged handset device and software designed to automate service technician work in the field at the point of customer contact. The mobile worker handset solutions also synchronize to a client server at the back office for integration with other mission-critical business applications.

Our scheduling and dispatch solution is an enterprise software program to optimize scheduling and routing of field service technicians. For dynamic capacity management, our capacity planner, capacity controller, and intelligent appointer modules round out this innovative service delivery automation technology.

One element of our market strategy targets opportunities in specific vertical markets where we believe we can provide a unique value to the end-user by tailoring our solutions for a particular industry. Sample markets include Construction Supply, Direct Store Delivery and Public Safety. For example, our ready mix concrete solution combines a suite of sensors with our in-vehicle wireless platform providing fleets with updated vehicle status that requires no driver interaction – referred to as “auto-status.”

## Table of Contents

We also sell our vehicle solutions using a horizontal market strategy that focuses on providing turnkey solutions to a broad range of service fleets that span a large number of market segments. Here, we leverage our capabilities without the same level of customization. These solutions are sold to the general service fleets as well as transportation and distribution fleets both on a direct basis and through dealer channels.

Our enterprise strategy focuses on sales to large, enterprise accounts with more than 1,000 vehicles or routes. Here, in addition to a Trimble-hosted solution, we can also integrate our service directly into the customer's IT infrastructure, giving them improved control of their information. In this market we sell directly to end-users. Sales cycles tend to be long due to field trials followed by an extensive decision-making process.

Approximate prices for hardware fall in the range of \$400 to \$3,000, while the monthly subscription service fees range from approximately \$25 to approximately \$55 per month per unit, depending on the customer service level.

We have also entered into new markets by acquisitions of @Road, Inc. (@Road) in 2007, and Eleven Technology, Inc., Advanced Public Safety, Inc. (APS) and Visual Statement, Inc. (VS) in 2006. @Road is a global provider of solutions designed to automate the management of mobile resources and to optimize the service delivery process for customers across a variety of industries under the GeoManager™ and Taskforce® brand names. Eleven Technology is a mobile application software company with market and technology position in the Consumer Packaged Goods (CPG) industry. APS provides mobile and handheld software products used by law enforcement, fire rescue and other public safety agencies. VS provides desktop software and enterprise solutions for collision and crime incident analysis, reporting and workflow management.

Representative products sold in this segment include:

**Fleet Productivity** – Our fleet productivity solution offerings are comprised of the TrimWeb™, GeoManager and TrimView™ mobile platforms. The TrimWeb and GeoManager systems provide different levels of service that run from snapshots of fleet activity to real-time fleet dispatch capability via access to the web-based platform through a secure internet connection. The TrimWeb and GeoManager systems include truck communication service and computer backbone support of the service. TrimView is sold to fleets where system integration into back office applications is required for more robust information flow.

**Consumer Packaged Goods (CPG)** – This software solution operates in the Microsoft CE/Pocket or WinMobile PC environment and addresses the pre-sales, delivery, route sales and full service vending functions performed by mobile workers. Customers within the CPG market purchase a combination of both license software and handheld PCs. The software handles all communications from/to the mobile computer as well as from/to the host and any other ERP or decision support systems.

**Field Service** – Our handset-based mobile solution enables technicians to maintain and repair residential and commercial appliances, office equipment, medical equipment, refrigeration equipment, fountain, and manufacturing equipment, and manage a variety of service functions including wireless dispatching of service calls, real-time messaging, spare parts management, and work order and workflow management. Trimble Field Service customers have benefited from increased service calls per day, an increase in first call resolution and reduction in administrative workload to name a few results.

**Public Safety** – We provide a suite of solutions for the public safety sector including our PocketCitation™ system, which is an electronic ticketing system that enables law enforcement officers to issue traffic citations utilizing a mobile handheld device. This system scans the traffic offender's driver's license and automatically populates the appropriate information into the citation. We provide a variation of this solution which enables law enforcement officers to complete electronic traffic citations within 30 seconds. Within this sector we also provide desktop software which



enables accident investigators and other public safety professionals to reconstruct and simulate vehicle accidents.

Taskforce – The Taskforce software solution provides scheduling and dispatch solutions for field service technicians by synchronizing the right human and physical resources required to optimize a field service resource network. The system manages significant numbers of dynamic scheduling resources in an unpredictable field service environment to increase productivity, field force utilization and control-to-field employee ratios.

## Table of Contents

### Advanced Devices

Advanced Devices includes the product lines from our Component Technologies, Applanix, Trimble Outdoors, and Military and Advanced Systems (MAS) businesses. With the exception of Trimble Outdoors and Applanix these businesses share several common characteristics: they are hardware centric, generally market to original equipment manufacturers (OEM), system integrators or service providers, and have products that can be utilized in a number of different end-user markets and applications. The various operations that comprise this segment were aggregated on the basis that no single operation accounted for more than 10% of our total revenue, operating income or assets.

Within Component Technologies, we supply GPS modules, licensing and complementary technologies, and GPS-integrated sub-system solutions for applications requiring precise position, time or frequency. Component Technologies serves a broad range of vertical markets including telecommunications automotive electronics, and commercial electronics. Sales are made directly to OEMs, system integrators, value-added resellers and service providers who incorporate our components into a complete system-level solution.

Component Technologies has developed GPS technologies which it is making available for license. These technologies can run on certain digital signal processors (DSP) or microprocessors, removing the need for dedicated GPS baseband signal processor chips. We have a cooperative licensing deal with Nokia for our Global Navigation Satellite System (GNSS) patents related to designated wireless products and services involving location technologies, such as GPS, assisted GPS or Galileo. The licensing agreement is exclusive to Nokia for the wireless consumer product and service domain and includes sublicensing rights. In return, Trimble receives a non-exclusive license to Nokia's location-based patents for use in Trimble's commercial products and services. We also have a licensing agreement with Marvell Semiconductors for our full GPS Digital Signal Processor software as well as tools for development support and testing. Access to our GPS technology complements Marvell's wireless and application processor initiatives for WiFi, Bluetooth, FM, multi-function radio, application processors and cellular processor devices.

Our MAS business supplies GPS receivers and embedded modules that use the military's GPS advanced capabilities. The modules are principally used in aircraft navigation and timing applications. Military products are sold directly to either the U.S. Government or defense contractors. Sales are also made to authorized foreign end users. Competitors in this market include Rockwell Collins, L3, and Raytheon.

Our Trimble Outdoors business utilizes GPS-enabled cell phones to provide information for outdoor recreational activities. Some of the recreational activities include hiking, biking, backpacking, boating, and water sports. Consumers purchase the Trimble Outdoors product through our wireless operator partners which include Sprint-Nextel, SouthernLINC Wireless and Boost Mobile.

Our Applanix business is a leading provider of advanced products and enabling solutions that maximize productivity through mobile mapping and positioning to professional markets worldwide. Applanix develops, manufactures, sells and supports high-value, precision products that combine GPS with inertial sensors for accurate measurement of position and attitude, flight management systems, and scalable mobile mapping solutions used in airborne, land and marine applications. Sales are made by our direct sales force to end users, systems integrators, and OEMs, and through regional agents. Competitors include Leica, IGI and Novatel.

Representative products sold by this segment include:

GPS Receiver Modules – The Lassen®, Copernicus®, Condor™ and Panda™ families of GPS modules are full-function GPS modules in a variety of form factors, some smaller than your fingertip.

TrimTrac Locator – Our TrimTrac® product is a complete end user device that combines GPS functionality with global system for mobile communications (GSM) wireless communications. In 2006, we added to the TrimTrac locator full quad-band GSM and general packet radio service (GPRS) support along with several important application level features. The device is suitable for high volume personal vehicle and commercial asset management applications that demand a low-cost locator.

TM3000 Asset Tracking Device – Our TM3000 product is a flexible, open platform that enables a broad range of applications such as: fleet management, mobile asset tracking and recovery and driver monitoring and assistance. This device integrates wireless communications, a positioning function and an application engine in a package designed to improve the profits for service-focused businesses.

## Table of Contents

Thunderbolt GPS Disciplined Clock – Our Thunderbolt® clock is a fifth-generation product from our GPS Timing and Synchronization division, which outputs precision time and frequency. It also serves as the architectural basis for GPS disciplined clocks sold to manufacturers of CDMA and WiMax infrastructure.

Applanix POS/AV System – Our integrated GPS/inertial system for airborne surveying measures aircraft position to an accuracy of a few centimeters and aircraft attitude (angular orientation) to an accuracy of 30 arc seconds or better. This system is typically interfaced to large format cameras and scanning lasers for producing geo-referenced topographic maps of the terrain.

Applanix DSS Digital Sensor System – Our digital airborne imaging solution produces high-resolution orthophoto map products. Certified by the USGS, the system consists of a mapping grade digital camera that is tightly integrated with a GNSS/Inertial system, flight management system (FMS) and processing software for automatic geo-referencing of each pixel. Our DSS can be used stand-alone or integrated with other airborne mapping sensors. Our DSS has been used by organizations worldwide in a variety of market segments that include ortho mapping, utility and transportation corridor mapping and rapid response applications.

Force 524D Module – This dual frequency, embedded GPS module is used in a variety of military airborne applications.

Trimble Outdoors Service – Our trip planning and navigation software works with GPS-enabled cell phones and conventional GPS receivers. This software enables consumers to research specific trips on-line as part of trip pre-planning. In addition, users are able to share outdoor and off-road experiences on-line with their friends and family.

## Acquisitions and Joint Ventures

Our growth strategy is centered on developing and marketing innovative and complete value-added solutions to our existing customers, while also marketing them to new customers and geographic regions. In some cases, this has led to partnering with or acquiring companies that bring technologies, products or distribution capabilities that will allow us to establish a market beach head, penetrate a market more effectively, or develop solutions more quickly than if we had done so solely through internal development. Since 1999, this has led us to form four joint ventures and acquire thirty seven companies through the end of fiscal 2008. Most of these acquisitions have been small, both in dollar terms and in number of people added to the Trimble employee base. No assurance can be given that our previous or futur