

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

FORM 10-K

(X) ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES  
EXCHANGE ACT OF 1934  
For the fiscal year ended January 1, 1999

OR

( ) TRANSITION REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 0-18645

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

California 94-2802192  
(State or other jurisdiction of (I.R.S. Employer  
incorporation or organization) Identification No.)

645 North Mary Avenue 94088  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (408) 481-8000

Securities registered pursuant to Section 12(b) of the Act: NONE

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

Common Stock  
(Title of Class)

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]

The aggregate market value of the registrant's Common Stock held by non-affiliates of the registrant was approximately \$180,915,000 as of March 15, 1999, based upon the closing sale price of the common stock on the Nasdaq Stock Market for that date.

There were 22,266,475 shares of the registrant's Common Stock issued and outstanding as March 15, 1999.

DOCUMENTS INCORPORATED BY REFERENCE

Items 10, 11, 12 and 13 of Part III incorporate information by reference from the registrant's Proxy Statement for its 1999 Annual Meeting of Shareholders to be held on June 2, 1999. Except with respect to information specifically incorporated by reference into this Form 10-K, the Proxy Statement is not deemed to be filed as a part hereof.

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This report 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. Actual results could differ materially from those indicated in the forward-looking statements as a result of the risk factors set forth in, or incorporated by reference into, this report. The Company has attempted to identify forward-looking statements in this report by placing an asterisk (\*) in the left-hand margin of paragraphs containing such material.

PART I

Item 1. Business

General

Trimble Navigation Limited, a California corporation ("Trimble" or "the Company"), is a leader in designing and developing innovative products enabled by GPS technology. The Company provides end-user and Original Equipment Manufacture solutions for diverse applications including surveying, mapping, marine survey, mining, construction and agriculture, mobile positioning, commercial avionics, military systems, automotive, timing, and geographic information systems. Trimble designs, manufactures and markets electronic products that determine precise geographic location. The Company's principal products, which utilize substantial amounts of proprietary software and firmware, are integrated systems for collecting, analyzing and displaying position data in forms optimized for specific end-user applications.

\* The Company has developed or is developing systems for seismology,

machine control, delivery fleets, buses, ships, airplanes, automobiles and cellular infrastructures. Trimble anticipates that additional markets will emerge to make use of the highly accurate position data obtainable from GPS.

## Background

Precise determination of locations both on and above the earth's surface is a fundamental requirement for many human activities. For example, position data is used for navigation on land, sea and air, and to conduct surveys and draw maps. Previous technologies have limited users to simultaneous determination of only two dimensions--latitude and longitude--while altitude and time required separate measurements with different equipment. GPS technology provides users with all of these measurements, using one instrument. GPS is a system of 27 orbiting Navstar satellites established and funded by the U.S. Government. On April 27, 1995, GPS was declared to have achieved Full Operational Capability by the U.S. Air Force Space Command. The U.S. Government intends for GPS to complement or replace many other forms of electronic navigation and position data systems. GPS offers major advantages over previous technologies in precision and accuracy, with worldwide coverage in three dimensions, and does so in addition to providing time and velocity measurement capabilities.

GPS positioning is based on a triangulation technique that precisely measures distances from three or more Navstar satellites. The satellites continuously transmit precisely timed radio signals using extremely accurate atomic clocks. A GPS receiver calculates distances from the satellites in view by determining the travel time of the satellites' signals. The receiver then triangulates its position using its known distance from various satellites, and calculates latitude, longitude and altitude. Under normal circumstances, a stand-alone GPS receiver is able to calculate its position at any point on earth, in the earth's atmosphere, or in lower earth orbit, to

within 100 meters, 24 hours a day. When a GPS receiver is coupled with a reference receiver with known precise position, accuracies of less than one centimeter are possible. In addition, GPS provides highly accurate time measurement.

\* The usefulness of GPS is dependent on the number and locations of GPS satellites that are above the horizon at any given time. The current deployment of 27 satellites permits three-dimensional worldwide coverage 24 hours a day. However, reception of GPS signals requires line-of-sight visibility between the Navstar satellites and the receiver, which can be blocked by buildings, hills and dense foliage. For the receiver to collect a sufficient signal, each satellite must be above the horizon, and the receiver must have a line of sight to at least three satellites in order to determine its location in two dimensions-latitude and longitude-and at least four satellites to determine its location in three dimensions-latitude, longitude, and altitude. The accuracy of GPS may also be limited by distortion of GPS signals from ionospheric and other atmospheric conditions, and intentional or inadvertent signal interference or Selective Availability (SA). Selective Availability, which is the largest component of GPS distortion, is controlled by the Department of Defense and is a currently activated, intentional system-wide degradation of stand-alone GPS accuracy from approximately twenty-five to one hundred meters. Selective Availability may be implemented by the U.S. Department of Defense in order to deny hostile forces the highly accurate position, time and velocity information supplied by GPS. In certain military applications, classified devices are utilized to decode the SA degradation and return accuracies to their original levels.

By using a technique called "differential GPS" involving two or more GPS receivers, accuracies can currently be improved to approximately one to five meters for navigation and one centimeter for survey applications, even with SA activated. This technique compensates for a number of potential measurement distortions, including distortions caused by ionospheric and other atmospheric conditions, as well as distortions intentionally introduced into the satellite data itself, such as SA. Differential GPS involves placing one receiver at a known location and continuously comparing its calculated location with its known location to measure distortions in the signal transmission and errors in the satellite data. At any one time, such distortions and errors are reasonably constant over large areas, so that one or more remote GPS receivers can use these measurements to correct their own position calculations. Measurement corrections can be transmitted either in real time over a suitable communication link such as radio or telephone, or integrated later with accumulated data, as is frequently the practice in survey applications.

Each of Trimble's GPS products is based on proprietary GPS receivers. Trimble's GPS receivers are capable of tracking all satellites in view and automatically selecting the optimum combination of satellites necessary to provide the most accurate set of measurements possible. Communications and computational modules, such as databases, database management systems, radio and other communication equipment, and various user interfaces, are added to these receivers to create fully integrated application solutions.

Navstar satellites and their ground support systems are complex electronic systems subject to electronic and mechanical failures and possible sabotage. The satellites have design lives of 7.5 years and are subject to damage by the hostile space environment in which they operate. To repair damaged or malfunctioning satellites is not economically feasible. If a significant number of satellites were to become inoperable, there could be a substantial delay before they are replaced with new satellites. A reduction in the number of operating satellites would impair the current utility of the GPS system and the growth of current and additional market opportunities. In addition, there can be no assurance that the U.S. government will remain committed to the operation and maintenance of GPS satellites over a long period, or that the policies of the U.S. Government for the use of GPS without charge will remain unchanged. However, the 1996 Presidential Decision Directive marks the first time in the evolution of GPS that access for consumer, civilian and commercial use has a

solid foundation in law. Because of ever-increasing commercial applications of GPS, other U.S. Government agencies may become involved in the administration or the regulation of the use of GPS signals. Any of the foregoing factors could affect the willingness of buyers of the Company's products to select GPS-based systems instead of products based on competing technologies. Any resulting change in market demand for GPS products could have a material adverse effect on the Company's financial results. In 1995, certain European government organizations expressed concern regarding the susceptibility of GPS equipment to intentional or inadvertent signal interference. Such concern could translate into reduced demand for GPS products in certain geographic regions in the future.

#### Business Strategy

The Company sees GPS as an information utility. In order to exploit the wide range of applications made possible by this information utility, the Company has implemented the following strategies:

\* Targeted Markets. The Company targets a number of specific markets for its GPS products, based on end-user applications. (See Industry Segments below for further discussion of the Company's segments). The Company believes that by adding application-specific features and functionality to its GPS technology, it can deliver value-added products into its targeted markets. To date, the Company has identified markets that it believes represent significant economic opportunities due to the broad range of potential applications for accurate and cost-effective position velocity and time information. The Company also continuously seeks to identify new markets into which GPS products and systems can be introduced. The Company believes that its continued growth will depend in part on its ability to identify and penetrate new markets for GPS applications.

Differentiated Product Solutions. The Company seeks to establish and sustain leadership in its targeted markets by offering products that are differentiated through software, firmware, customized user interfaces and the Company's service and support. Where feasible, the Company emphasizes application-specific systems that solve specific sets of problems in its markets. The Company believes that a substantial portion of the value of its products is derived from the firmware that is embedded in the product or software provided to enable superior performance. In addition, the Company incorporates other technologies into some of its products, such as communications, computational capabilities and non-GPS positioning technologies in order to optimize product features for its two segments.

Technology Leverage. The modular design of Trimble's products enables the Company to create and maintain a broad line of products without necessarily repeating development efforts or requiring extensive redesigns for product upgrades. Trimble further believes that its approach of providing many product software features enables the Company to respond quickly to the needs of rapidly evolving markets through software upgrades.

Multichannel Distribution. The Company seeks direct communication with its customers in order to develop and modify its product designs as necessary to maximize utility and payback to the user. Trimble has built a worldwide sales and service organization of Company employees, distributors and dealers for each major market it addresses. In addition, the Company intends to continue to develop new and to strengthen existing alliances and Original Equipment Manufacturer relationships with established foreign and domestic companies as part of its strategy to penetrate certain targeted markets. The Company has pursued such alliances with several companies including VDO Car Systems, Pioneer Electronics Corporation, Delco Electronics, Nortel, British Telecom, American Mobile Satellite Corporation, E-systems, PRC Public Sector, Honeywell, and Intel

in the Mobile Timing and Technology segment; Caterpillar, Inc., Topcon, and Case Corporation in the Precision Positioning segment.

Integration with Communication Technologies. GPS technology is increasingly being integrated with wireless communication technologies, offering economic and strategic advantages in areas such as navigation, vehicle fleet management, long-haul trucking, public safety, and real-time applications for mining, surveying, and mapping. Accordingly, the Company is currently devoting research and development efforts to products that integrate the Company's proprietary GPS receivers with wireless communication technologies.

#### INDUSTRY SEGMENTS

The Company operates in a single industry segment as a leader in designing and developing innovative products enabled by GPS technology. The Company provides end-user and Original Equipment Manufacture solutions for diverse applications including surveying, mapping, marine survey, mining, construction and agriculture, mobile positioning, commercial avionics, military systems, automotive, timing, and geographic information systems. During 1998, the Company announced that it was discontinuing its participation in General Aviation. The Company sells its products through a direct-sales force located in fifteen countries, as well as through a worldwide network of dealers, distributors and authorized representatives. Research and development activities are conducted at the Company's facilities in Sunnyvale, California, and Christchurch, New Zealand. Manufacturing is performed in Sunnyvale, California and Austin, Texas.

The Company manages its industry segment within two Business Units: the Precision Positioning Group (PPG) and the Mobile and Timing Technologies (MTT) Group.

The industry segment is managed in two Business Units to achieve different distribution, marketing, production, and technology strategies. The Precision Positioning Group derives its revenues from GPS-based land surveying, mining, construction and agriculture, geographic information systems mapping, and marine survey markets. The Mobile and Timing Technologies market derives its revenues from GPS-based automotive, timing, mobile positioning technologies, commercial aviation, and military systems markets, and from development of software licenses and other rights for the use of GPS to third parties.

Although the Company believes that these Business Units have growth potential for sales of GPS products, there can be no assurance that such Business Units will continue to develop, particularly given that GPS-based systems are still in an early stage of adoption in some of these markets. The Company's future growth will depend on the timely development of the industry markets in which the Company currently competes, and on the Company's ability to continue to identify and exploit new markets for its products. Each Business Unit is managed by a group vice president who has responsibility for strategy, marketing, product development and financial performance.

#### Precision Positioning Group

The Precision Positioning Group focuses its efforts in markets where the distribution chain uses independent distributors or a direct sales force to sell directly to the end users. The products are system solutions in a high-end, value-added market.

A key business strategy of PPG is interoperability, which involves the focus on, and development of systems that integrate sensors utilizing a wide variety of technologies and communications with GPS. This interoperability developed by the Company is an extremely important advantage over any of the

competition. The emphasis is on providing solutions for applications rather than just GPS technology, and results in a higher real value to the customer. The concept of interoperability applies to electronic and mechanical accommodations of other technologies, together with GPS, to solve a problem. Probably the most important area of interoperability, and often the least recognizable until the integrated solution is put into use, is in the area of data interchange. In the Land Surveying product line for example, the Trimble Survey Controller data collector software and Trimble Survey Office PC software products enable the seamless collection, processing and use of data from Trimble's Real-time Kinematic (RTK) GPS surveying products and conventional (optomechanical) instrument surveys using products of other manufactures.

The Precision Positioning Group consists of four product lines addressing the following markets: Land Surveying; Marine Surveying; Mapping and GIS Systems; and Mining, Construction and Agriculture.

Land Surveying. Surveying involves establishing precise points and boundaries for legal, construction and mining purposes. It consists primarily of collecting and processing position information. Surveying accuracy is expected to be within a centimeter. The Company believes that its GPS surveying products substantially reduce the cost, time, and number of people required to survey and process precise position information for a given level of accuracy. Many of the applications which the Company addresses in the surveying market include, control surveying, construction and engineering surveying, topographic surveying, property line surveying and geodetic research. The Company addresses the land surveying market with GPS systems and a recently introduced conventional (optomechanical) surveying instrument with reflectorless technology and application software. GPS does not require line-of-sight between land-based reference points and is unaffected by most adverse weather conditions (as compared to traditional methods such as optical or laser measurements), providing advantages in many survey applications. Reflectorless technology provides the ability to survey in areas where GPS signals are obstructed-for example, tunnels, parking garages, and dense forests, as well as building facades or dam faces that are difficult or dangerous to reach. A key competitive advantage of the land surveying product line is the seamless interchange between GPS and conventional surveying tools and laser range-finders, with full support from the office and field software. Additionally, the land surveying products support two-way data exchange with third-party CAD, design and Geographic Information Systems (GIS) packages.

For a number of years the Company's GPS surveying products have been one of the first choices for control surveying applications. Control surveying is the precise determination of the location of local geodetic reference points from which further local surveying is based. The Company's GPS surveying systems have reduced the cost of establishing control points, compared to conventional techniques, and have led to programs to remeasure previous geodetic control points to sharply increase precision and eliminate errors. Additionally, GPS has become a standard tool for geodetic research. Research geodesists have found that long baseline precisions using GPS are significantly greater than those obtainable with optical and electronic distance-measuring equipment. This high degree of precision has also created a significant market for GPS in seismic research where earth movements of less than one centimeter can now be measured and monitored. Today GPS is the preferred technology for both control and geodetic surveying.

The Company's GPS surveying products are also used in large-scale construction projects in which the position of a large number of points needs to be cost-effectively established. The Company's products are particularly efficient for applications in areas where ground-level obstructions to visibility prevent line-of-sight conventional surveying techniques. The Company also supplies route surveying applications, which provide a cost- and time-effective means of precisely locating a large number of points and physical features along routes and rights-of-way, such as roads, pipelines and telephone and power lines.

Real-time Kinematic GPS surveying has made GPS surveying instrumentation a successful alternative to conventional surveying instruments for a wide variety of applications. Today, a significant portion of the land survey business is for applications where conventional instruments could have been used. This is possible through the use of Real-time Kinematic GPS surveying. The Company was the first to introduce RTK GPS in 1993. RTK GPS involves the computation of precise positions in real time, instead of postprocessing the observed data. Vectors are computed between a precisely known fixed base station and one or more roving GPS surveying systems. This is done by transmitting information from the base station to the rovers, using a radio link. These rovers use the information to calculate a precise position. The data collector software converts the position from the World Geodetic System 1984 (WGS-84, the worldwide coordinate system used by GPS) to the local coordinate system used for the area of the survey work. This enables the productive use of RTK GPS surveying systems by a single surveyor on foot, for construction layout, topographic mapping, and demarcation and division of large tracts of land.

In 1998 the Company introduced the TTS 500 optical total station with reflectorless technology as an extension and complementary tool to GPS. A significant competitive advantage of the TTS 500 is the reflectorless technology, which allows for the use of non cooperative target technology. Traditional conventional surveying instruments require a prism target for making distance measurements in order to precisely survey a site. Reflectorless technology allows the user to point the telescope of the TTS 500 at virtually any target within a 250-meter range to make millimeter level distance measurements.

In the surveying market, the Company faces on going competition from other GPS vendors, such as Ashtech, Inc. (now part of Magellan via Orbital Sciences Corp) and NovAtel Inc. The Company also faces competition from vendors of traditional optical surveying products, such as Carl Zeiss; Leica AG; Sokkia Company, Ltd.; Spectra Precision; and Topcon Corporation. All have entered the GPS surveying market and are introducing GPS products of their own.

Marine Surveying. Marine surveying is focused on precise, dynamic positioning, and precise navigation in marine environments. The applications cover offshore oil exploration, hydrographic surveys, environmental surveys, marine construction, cable and pipe laying, dredging, barge positioning and many others. The Company provides complete solutions that utilize its GPS sensors and extensive software product capabilities, often in conjunction with other equipment, for many of these applications. Trimble's marine surveying activities also include the design and marketing of Differential GPS (DGPS) systems, which include reference stations, integrity monitors and control stations, used to establish and monitor the integrity of DGPS and RTK broadcasts.

In marine surveying and marine construction applications, the Company faces competition from CSI, Sercel, Leica, Ashtech, Inc. (now part of Magellan via Orbital Sciences Corp) and Coastal Engineering.

Mapping and GIS Systems. For mapping applications, large amounts of position and attribute data (such as color, size and condition of the object) must be obtained. Compared to surveying, mapping involves more extensive but less precise location and plotting of geographical and man-made features. Mapping applications include large-scale mapping of geographic and man-made features, data collection for Geographic Information Systems (GIS) databases, natural resource management and ground contour mapping. Required accuracies are typically from twenty-five centimeters to three meters.

Currently, large-scale accurate mapping is usually accomplished by photogrammetric analysis of aerial photographs, a complex and expensive technique. The Company supplies the mapping market with products enabling the

user to capture position data while in aircraft, or traversing terrain on foot or in a vehicle. The Company is also developing additional products for the mapping market. The Company believes that these products can lower the cost of position and attribute data collection.

GIS databases are used by federal, state, county, and city governments and by utility companies for a variety of applications requiring accurate information on the location of natural resources and municipal infrastructure, such as utilities and transport networks. Currently, building such a database requires time-consuming compilation of data from numerous existing maps and digitized photographs, as well as costly physical surveys. The Company's products, used in connection with commercially available databases, have the potential to substantially reduce the cost of constructing GIS databases, and increasing their accuracy.

In the mapping market, the Company faces competition from Ashtech, Inc. (now part of Magellan via Orbital Sciences Corp); NovAtel Inc.; CMT, Inc.; Garmin Corporation; Magellan Corporation (a subsidiary of Orbital Sciences Corporation); Motorola, Inc.; Sokkia Company, Ltd.; Topcon Corporation; and others. Competition in the mapping market has increased as competitors have introduced new products.

Mining, Construction & Agriculture. Trimble's GPS receivers and data communications products are used on machine-type vehicles to provide real-time positioning and other key information for the vehicle operator. This information may be displayed on digital readouts or graphic displays and may be integrated with other on board electronic information systems to guide and to indicate machine position and performance in an easily understood manner. As the availability of highly accurate, cost-effective and robust real-time GPS solutions has increased, numerous potential machine guidance and control applications have been identified. Among the emerging applications on large, mobile field machines are precision farming equipment, mining equipment, construction machinery and aerial spraying.

Guidance and control of large, mobile field machines has traditionally been done by the machine operator without the aid of advanced navigation and positioning technology. Lasers have been used for some applications on a limited, though increasing, basis. These traditional techniques have frequently proven less than optimal because they are limited to positioning in elevation, or have complex methods for horizontal guidance. Lasers, for example, provide good vertical height information but are not inherently well-suited to three-dimensional position information and rely on line-of-sight to function effectively. Because field machinery is very expensive to own and operate, maximizing efficiency is paramount, and even small productivity gains can have significant economic returns. GPS has the potential to provide accurate and robust positioning information. When this information is used in conjunction with other critical information about the materials being worked on, such as location of target ores, overall operational efficiency can increase.

Trimble's products, including sensors and systems, are marketed to Original Equipment Manufacturers (OEMs), systems integrators, and directly to end-users. Because some mobile machine markets are dominated by a relatively small number of OEMs, success can be influenced by the ability to maintain favorable relationships with selected OEMs. Currently, Trimble has established a relationship with some of these OEMs, including Caterpillar Inc. and Case Corporation.

\* Since the applicability of GPS for these types of applications is still new, its use and subsequent benefits are not yet widely understood or adopted. The Company must, therefore, devote significant efforts to educating the market as to the advantages of GPS in these applications. This can result in a delay in market development.



The Company faces competition from traditional GPS manufacturers such as Ashtech, Inc. (now part of Magellan via Orbital Sciences Corp), Leica AG, and NovAtel Inc., Topcon, Spectra Precision, as well as from established, laser-based integrated system providers.

#### Mobile and Timing Technologies

The Mobile and Timing Technologies Group focuses its efforts in markets where the majority of its products are sold directly to OEMs or system integrators. The products are designed to support system solutions in high-volume applications. In some instances the Business Unit's products are in the form of software licenses and other rights for the use of GPS by third parties. This Business Unit focuses on five product lines: automotive, timing, mobile positioning, air transport systems, and military aerospace systems.

**Automotive.** The Company's Automotive market has built a leadership position in the worldwide market for embedded GPS products. Already in its seventh-generation design, MTT offers products that provide full-function, high-performance embedded GPS engines for systems integrators. The extensive range of GPS products is used in such diverse applications as car navigation, vehicle and high-value cargo tracking, precision agriculture, and mobile computing.

Trimble's Automotive market has a reputation for providing high-performance products, high-level technical support, and custom product engineering. Trimble continues to maintain leadership in the embedded GPS board market for tracking applications, thus securing a strong position through partnerships with key customers. In the tracking market, new applications such as safety, loss prevention, and emergency assistance systems continue to emerge as a result of the increased availability of smaller-size and lower-power boards. Trimble's MTT business unit provides key technology for these applications. Competitors are Motorola, Inc.; Japan Radio Corporation; Rockwell International Corporation; and others.

Trimble supplies GPS boards, chipsets, and licenses technology to some of the leading automotive electronics suppliers, including Philips Car Systems, Pioneer Electronics, Magneti Marelli, VDO Car Communication (a division of the Mannesmann Group), and Blaupunkt (a wholly owned subsidiary of Robert Bosch GMBH). Trimble is also part of the reference design for Intel's initiative to develop in-car Pentium processor-based computing, and Microsoft's Auto PC platform.

**Timing.** The growth and expansion of data and wireless communication networks have increased the need for GPS timing products. Trimble's MTT market provides technically advanced timing products to major infrastructure providers who require reliable, precise synchronization of wireless network infrastructure in this market, such as Nortel and other system integrators. By accessing the cesium clocks on board the GPS satellites, a GPS receiver can provide atomic clock accuracy at a fraction of the cost of traditional methods involving the use of rubidium. Such timing products range from smart antennas and a GPS receiver combined with an antenna in one enclosure, to a time and frequency output device.

In the Timing market, the Company faces competition from Hewlett Packard; Datum; Odetics; and others. Trimble remains the cost and performance leader in this market.

**Mobile Positioning.** The Company is an established leader in providing tracking and communications products in the public safety, long-haul trucking, and fleet management. These products typically include GPS, combined with conventional radios, cellular, or satellite communications and application software for use in the vehicles and at a base station. The Company's software generally addresses the need for map displays, communications control, vehicle monitoring, and messaging. These products are used in a variety of fleets, such

as transit buses, police cars, fire trucks, ambulances, trucking, and ships. In some instances, the Company provides additional services such as training, installation, custom features, and program management. More recently, the Company has introduced similar products for trunked radio and cellular communications-products that are addressing productivity and security needs in the commercial fleet markets.

In some instances, Mobile Positioning markets its products directly to end-users, but the large majority of its products are sold through resellers. Direct sales to end-users are focused on opportunities in which the Company's standard products closely match the customer's requirements. Public sector sales often require significant customization, and the Company uses integrator partners such as E-Systems, IBM, and Motorola to interface directly with the end-user. Other tracking and communication products are sold through OEM integrators and value-added resellers, some of whom address the international market.

The public sector customers are highly dependent on government funding for fleet modernization. Capital equipment funding for U.S. public transit operators comes primarily from congressional appropriations under the Intermodal Surface Transportation Efficiency Act. Public safety organizations depend largely on local government funding. Failure of the funding authorities to appropriate funds for these purposes could have substantial impact on the Company's future revenue.

\* Because the availability of GPS is still new, its use and subsequent benefits have not been understood by the broad vehicle tracking market. The Company must therefore devote considerable resources to communicating these GPS benefits and to educating the market. This market education requirement could result in a delay in market development and growth.

Air Transport Systems. The Company believes that GPS has significant advantages in terms of accuracy and coverage over current primary and supplemental systems for air transportation. During 1994, the U.S. Government issued statements to the International Civil Aviation Organization (ICAO) guaranteeing the GPS signal for a minimum of 10 years. In addition, GPS technology faces competition from more mature and established technologies that are currently in widespread use and have in place the infrastructure required for administering these systems.

The Company has recognized the potential of GPS for aviation and, in addition to airborne navigation and flight management units, is also pursuing GPS technology in flight trajectory truth systems, tracking systems, sensors and other aviation applications. During 1995, the Company began an alliance with Honeywell Incorporated, a major supplier of aviation equipment, to produce GPS-based equipment for the commercial air transport market.

During 1994, the Federal Aviation Administration (FAA) adopted a policy establishing GPS as the future standard for aviation navigation, and initiated the Wide Area Augmented System (WAAS) program to allow the use of GPS for primary navigation and precision approaches by 1998. This followed the December 1992 FAA publication of certification procedures that allow the use of GPS as a supplemental source of navigation information for aircraft operating under Instrument Flight Rules (IFR). In 1995, the FAA published procedures for approving GPS as a primary means of navigation for oceanic flights.

The Company was the first to certify its equipment under the regulations as discussed above. The Company also has certified equipment that is used in conjunction with other FAA certified navigation systems incorporating Omega and LORAN-C capabilities. Currently, the Company believes it has received FAA Certification for the Technical Standard Order C-129, covering more products than any competitor.

\* Currently, the primary FAA-required navigation system is the VOR/DME system, a ground-based transmitter network. The Company believes GPS has the potential to replace VOR/DME as the primary FAA and ICAO-required navigation system. The range for VOR/DME is limited to fifty to one hundred fifty miles, line of sight from a transmitter. This leaves large areas of the world uncovered, including significant portions of the airspace within the United States. Though VOR/DME accuracy is adequate for two-dimensional navigation, GPS provides even greater accuracy while also providing precise timing information.

Competition in the Air Transport Systems market comes from manufacturers of GPS products, as well as traditional navigation and flight management system manufacturers. Competing manufacturers of GPS products include Rockwell Collins, AlliedSignal Aerospace (through its Electronics & Avionics Systems Division), Universal Navigation Corporation, Canadian Marconi Company (a subsidiary of the General Electric Company plc), Northstar Avionics (a subsidiary of Canadian Marconi), and IIMorrow, Inc. (a division of United Parcel Service of America, Inc.). Traditional navigation and flight management system manufacturers include Honeywell Incorporated, AlliedSignal Aerospace (through its Air Transport Avionics Division) and Smiths Industries. Competition in the flight trajectory truth system is from Ashtech, Inc. (now part of Magellan via Orbital Sciences Corp), and in the tracking system from ARNAV.

Military Aerospace Systems. The Company has been developing GPS receivers for military applications since 1986. Its approach to the market has been as a commercial manufacturer of GPS electronics, modified and enhanced for military use. The Military Aerospace industry market designs and manufactures GPS equipment capable of utilizing the civilian C/A code, as well as the P(Y) code reserved for users authorized by the United States Department of Defense. These Precise Positioning Service receivers provide authorized users with GPS equipment that removes the effects of Selective Availability (allowing higher accuracy), and includes anti-spoofing protection and additional immunity from jamming signals. The Company sells equipment to the United States Department of Defense, aerospace prime contractors, and foreign military organizations.

Applications of GPS in military markets include ground vehicles, handheld units, military aircraft, missiles, unmanned air vehicles, and navy vessels. Military GPS equipment efficiently provides accurate position, velocity, and timing information to and from battlefield management systems that coordinate and control the deployment of equipment and personnel.

The Company's Military and Advanced Systems strategy is to build on its advanced position in GPS technology as the foundation for developing partnerships with major military manufacturers and to offer complete airborne and ground-based time-and-positioning solutions for military and aerospace applications. In these markets, Trimble competes, partners, and subcontracts with a number of companies, some of which have substantially greater financial and marketing resources, as well as substantial experience and resources devoted to military sales. Interstate Electronics (subsidiary of Figgie International), Magnavox (subsidiary of Hughes), Raytheon, Litton Industries, and Rockwell International Corp., as well as a number of European companies, manufacture products that are competitive with the Company's military products.

\* Military sales are subject to various uncertainties, including the timing and availability of funding for U.S. and foreign military contracts, and the competitive nature of government contracting in general. There can be no assurance that the Company will be awarded future U.S. military contracts. In addition, the U.S. government retains the right to impose restrictions on the sale of GPS products to foreign military organizations at any time.

## Discontinued Market - General Aviation

On October 2, 1998, the Company adopted a plan to discontinue its General Aviation division. The decision to discontinue the General Aviation division was one of the strategies focused on by the Company to return the business to profitability. Accordingly, the General Aviation division is being reported as a discontinued operation for all periods presented in these financial statements. Net assets of the discontinued operation at October 2, 1998, were written off and consisted primarily of inventory, property, plant and equipment, and intangible assets.

The Company plans to dispose of the discontinued operations through a closure of the division. The assets of Terra Corporation, which were acquired in 1996 by Trimble, are included in the discontinued operation.

## Business Unit Products

The following is a list of the Company's principal products, organized by its business units:

### Precision Positioning Group

#### Land Surveying Products

4000 Series. Historically one of the Company's most successful product lines, the 4000 series GPS receivers and their associated GPS antennas are instruments that provide position information with precisions as good as 5mm. The Company offers survey grade 4000 series GPS receivers that use the L1 frequency (i.e., single frequency receivers) and both the L1 and L2 frequencies (i.e., dual frequency receivers) broadcast by the Navstar satellites. Dual frequency receivers offer users greater productivity and better accuracy, especially over longer distances. The 4000 GPS receiver is available in two configurations for high-end control and geodetic research applications. The products differ from one another in the specific functions that they provide the user. The systems can be used in either a real-time mode (positions are generated virtually instantaneously) or in a postprocessing mode (raw satellite data are collected and stored for subsequent processing on a computer, utilizing specialized software).

GPS Total Station. In 1994, Trimble introduced the GPS Total Station surveying system. This complete surveying system consists of two or more survey grade GPS receivers, GPS antennas, radio modems for transmitting data between the GPS receivers, a TSC1 data collector running Trimble Survey Controller software for managing the real-time GPS survey and storing data, plus office processing software. One receiver is used as a base station and the other as a "rover" that the user carries around in order to survey individual points. The system incorporates advanced features that make Real-time Kinematic GPS surveying practical as an everyday surveying technique. The GPS Total Station 4800, introduced in 1997, is a highly compact system that integrates all of its rover components onto a single lightweight pole, thereby eliminating the need for a backpack and any cables strung between the surveyor and the survey pole. The GPS Total Station 4700, introduced in 1998, is a small, lightweight, modular system with integrated radio and separated GPS and radio antenna, that offers logistical advantages over the fully integrated GPS Total Station 4800. The GPS Total Station 4700 and 4800 are fully compatible, and customers often mix the systems for complete versatility in the field. The system's advanced handheld data collector, the TSC1, is designed and manufactured by the Company.

TTS 500 Total Station. In 1998, Trimble introduced the TTS 500 as an extension to the GPS Total Station. The revolutionary TTS 500 total station consists of a single optomechanical surveying instrument with reflectorless technology and software. Unlike traditional surveying instruments, which require a target, the TTS 500 utilizes reflectorless technology to make millimeter measurements off non-cooperative targets. This extends the user's ability to survey in areas where GPS signals are obstructed, or in locations that are difficult or dangerous to reach. As with the GPS Total Station, the reflectorless technology means a single user can survey. Reflectorless technology removes the need for a second person to hold the prism target that is required by traditional conventional surveying instruments. In the field, users can seamlessly interchange between the TTS 500 and the GPS Total Station 4700 or 4800, using the TSC1 data collector running Trimble Survey Controller software.

GPSurvey, Trimble Survey Office and Trimble Survey Controller. GPSurvey and Trimble Survey Office are PC-based office software suites that provide surveyors with the tools they need for project planning and processing of their GPS surveying projects. GPSurvey postprocesses data collected in the field and provides the user with finished data sets and reports. GPSurvey also includes network adjustment capabilities. Trimble Survey Office manages data collected by real-time GPS and conventional optical survey methods, and reduces the data into finished data sets. Both Trimble Survey Office and GPSurvey provide the functionality to export data to third-party CAD, design, and GIS packages. The Trimble Survey Office software also imports and converts design data from design packages into a suitable format for transfer to Trimble Survey Controller software running on the TSC1. This data is used for construction and road stakeout. Trimble Survey Controller software runs on the TSC1 data collector and is used to control and manage survey and stakeout tasks in the field. All of these products are sold as part of the land survey product systems. The TSC1 with Trimble Survey Controller is also available as a controller for conventional surveying instruments from leading manufacturers.

TRIMTALK and TRIMMARK Radios. These radio modems are used for real-time GPS applications. They provide broadcast and receive functions for VHF, UHF and 900 MHz spread spectrum data transmission, and they operate at baud rates sufficient to carry the data needed for real-time GPS survey applications. These products are sold as part of survey product systems.

#### Marine Surveying Products

NT300D. This product combines the graphics display and navigation features of a marine GPS receiver with the sub-meter positioning accuracy and performance of a marine survey grade DGPS receiver. The unit features 12 GPS channels and 2 MSK channels for reception of DGPS correction data from Marine Radiobeacons. The NT300D is ideal for many marine surveying applications, providing in one product the ability to both navigate and position.

MS750. This product brings the latest in Real-time Kinematic GPS technology to the marine environment. With the fast, reliable OTF initializations and rapid position updates, the product is ideally suited for the control and docking of high-speed ferries and the positioning of large marine structures, such as bridge spans for marine construction.

4000RSi/DSi. The 4000 series products provide sub-meter accuracy and are suited to marine survey applications that do not require the performance of the MS750 series products. The 4000 series GPS sensors address a broad segment of the marine survey market, and provide customers with a choice of price and performance in GPS sensors. The 4000 series products also integrate well with total solutions, such as Hydro and Target: Structures products, discussed below.

DSM. These products are combined MSK beacon and differential GPS sensors and reference stations targeted mainly to value-added resellers. They

provide sub-meter GPS data in the form of a "black box." The DSM allows for comprehensive custom solutions developed by third parties.

Hydro. This line of software programs provides total solutions for many marine survey applications. It provides the capability to integrate the best of Trimble designed and built GPS sensors with additional equipment, such as depth sounders, to provide customers with highly customizable solutions to a wide range of marine survey and construction challenges. The newest program in this line is HydroPro, which is a Windows 95 and Windows NT software suite.

Target: Structures. This Windows and Windows NT based program provides for precise positioning of large mobile offshore structures or platforms. Utilizing real-time GPS receivers such as the MS750, this innovative software enables barge and crane operators to efficiently and safely guide large structures to any target location for marine construction.

Beacon Control System. The 4000 series products form the hardware basis of Trimble's DGPS MSK Reference Station and Integrity Monitoring offerings, which comply with internationally accepted Radio Technical Committee Marine (RTCM) standards for broadcast on radio beacon frequencies. Trimble equipment is in use in more than 30 countries, broadcasting DGPS corrections and monitoring their integrity. The Beacon Control Software is a Windows-based program that is often provided as part of the complete system. The software allows complete control of all hardware components, providing updates and status information.

#### Mapping and GIS Products

Geoexplorer II. The GeoExplorer II is a self-contained handheld system providing a few meters of accuracy for mapping and GPS/GIS data collection at a reduced cost.

Pathfinder Pro Family. The GPS Pathfinder Pro XR/XRS system's integrated real-time positioning capabilities allow the user to collect, relocate and update geographic information with an accuracy of better than one meter. When combined with Trimble's handheld Asset Surveyor or pen computer-based ASPEN software, the Pro XR/XRS offers a complete system for real-time mapping and GPS/GIS data collection.

Pathfinder Office. The GPS positions and descriptive information collected by each of these systems are downloaded to a personal computer using Trimble's Pathfinder Office software, where the information can be processed, edited, and plotted-or output into standard GIS, CAD and database formats.

Pathfinder Card. The GPS Pathfinder Card is a GPS receiver, in an industry-standard PC Card format, that is capable of collecting data with an accuracy of 1 to 3 meters.

Pathfinder Tools Software Development Kit. Trimble's Pathfinder Tools SDK is a powerful software development kit (SDK) designed to integrate Trimble GPS receivers with custom mapping and GIS applications. It includes an extensive library of software components, including ActiveX controls and programmable automation objects that can be integrated using standard development languages such as Microsoft Visual Basic and Visual C++.

#### Mining, Construction & Agriculture Products

MS750. The rugged MS750 is designed specifically for dynamic machine guidance and control applications. Centimeter-level position updates are computed twenty times per second, ensuring the response and accuracy necessary for precise dynamic applications on moving equipment.

Eurocard DSM. The Eurocard DSM is based on Trimble's advanced low-power, low-noise, high-accuracy chip technology. Advanced carrier-aided filtering techniques applied to exceptionally low-noise C/A code measurements are used to generate real-time, sub-meter differential (DGPS) positions at a maximum rate of 10 Hz, even under challenging conditions.

BenchGuide. The Trimble BenchGuide system provides mining machine operators with precision GPS-based guidance in locating correct bench or terrain elevations without using survey stakes. It can be used with Trimble radio modems, and it provides accurate, low-latency GPS positions in a local coordinate system. BenchGuide provides numerous benefits over traditional bench elevation systems. It is maintenance-free and operates in bad weather or under dusty conditions that limit the range of other systems.

TRIMCOMM 900. The rugged TRIMCOMM 900 is a high-speed data radio link for real-time differential and Real-time Kinematic GPS solutions, and is ideal for machine guidance applications. It provides a versatile means of establishing a wireless broadcast network, supporting up to four repeaters for extended coverage. A dual port TRIMCOMM 900 makes it possible to maintain two-way communications throughout the coverage area, allowing real-time machine position and office design information updates.

TrimFlight. TrimFlight is a sub-meter guidance, logging, and mapping system for aircraft that provides assurance of proper application of farm chemicals when used in crop spraying. TrimFlight eliminates the need for human flaggers, and it generates reports and maps providing flight information and the exact location of application. TrimFlight's computer interface allows for integration to other applications, such as photogrammetry and remote sensing. TrimFlight data is compatible with most major GIS software packages.

AgGPS 122. The AgGPS 122 is a combined MSK beacon and differential GPS receiver for sub-meter agricultural positioning applications. The system integrates with other devices such as harvest yield monitors.

AgGPS 132. The AgGPS 132 is a combined MSK beacon and differential GPS receiver plus an L-band satellite differential receiver, all in one system. The system integrates with other devices, such as harvest yield monitors, and can provide sub-meter positions that can be output to yield monitors, variable-rate planters, application controllers and field computers. A Parallel Swathing Option further enhances productivity, especially in low-visibility conditions, and reduces operator fatigue.

#### Mobile and Timing Technologies Products

#### Automotive Products

ACE II GPS Module. The newest miniature board product is the ACE II GPS Module. This powerful 8-channel architecture, with the popular Core Module form factor, is designed for applications requiring high performance at low cost. ACE II GPS delivers fast GPS signal acquisition and low power consumption, making it ideal for mobile and battery-powered applications.

Lassen-SK8. The Lassen-SK8 board, based on the Sierra GPS technology, is used in the automotive and embedded markets. Just two-thirds the size of a business card, this miniature 8-channel GPS board provides high performance, fast acquisition and reacquisition time, low power consumption and two-meter accuracy.

Sierra GPS Chipset. The Sierra GPS Chipset features state-of-the-art performance, small size, low power consumption and low cost. The chipset consists of two ASICs, fully developed software and unmatched technical support. The two ASICs are composed of Trimble's GPS DSP ASIC and RF/IF down-converter chip.

SveeSix. SveeSix is a family of GPS boards and assemblies designed for high-performance embedded GPS applications for tracking. The family includes SveeSix and Sveesix-CM3.

#### Mobile Positioning Products

The Company offers a line of products designed to meet many of the needs of customers who need to monitor and track mobile assets using wireless communications. These products include GPS receivers, and GPS receivers integrated with other technologies such as dead reckoning, industry-specific applications processors, mobile radio modems, cellular telephones, satellite communications, mobile data terminals, communications control software, and automatic vehicle location (AVL) display software.

MTT Antennas. Trimble offers a variety of miniature GPS antennas for mobile or vehicle applications. These antennas include the Miniature GPS Antenna, a compact, active micropatch antenna with a 5-meter cable and magnetic mount; the Hard-mount Antenna, a compact, hard mount, active micropatch antenna with single-hole 0.75" threaded mount and TNC connector; and the Rooftop Antenna, consisting of the Bullet II HE antenna with 23-meter cable and SMB adapter. These antennas are widely used for vehicle tracking, car navigation systems, and harsh timing environments.

MTT Starter Kits. Trimble offers Starter Kits for developers who want to evaluate and integrate GPS receivers and antennas. The kits contain all components required to evaluate the receiver's features and to begin integration into the user's application. Generally, a starter kit will include a GPS receiver, a GPS antenna, documentation, and required cables and software.

GPS Receivers. The Company's product line includes the Placer 450 family (receivers configurable for fleet tracking applications) and the Placer 455 a GPS receiver integrated with a gyroscope and an odometer interface for precise position information.

Integrated GPS and Cellular Phone Products. The Company offers a line of GPS/cellular products known as GPS Cellular Messenger, targeted at high-value cargo security, driver compliance, and fleet asset management applications.

Public Sector Services. In some public safety sectors, the Company provides certain services including training, equipment installations, integration of third-party radios, and computers and program management. Also, the Company provides AVL subsystems, consisting of in-vehicle hardware and base station communications and display software.

Galaxy Inmarsat-C/GPS. Galaxy is the first system to combine Inmarsat-C with GPS to provide rapid digital global communication with precise global positioning. Inmarsat-C provides worldwide, two-way store-and-forward text communication via Packet Switched Data Network (PSDN) or Public Switched Telephone Network, and fax delivery of inbound messages. Galaxy is designed for use by truck, rail and other land applications, as well as merchant ships, commercial fishing boats, yachts and other vessels requiring cost-effective two-way communication links plus precise position information for emergency, safety, navigation and tracking needs.



## Timing Products

MTT Timing Products. The newest generation of GPS synchronization devices is the Company's Thunderbolt GPS disciplined clock. This clock combines an 8-channel GPS receiver, control circuitry and a high-quality ovenized oscillator on a single board. This level of integration provides superior performance to precise timing applications, such as CDMA wireless infrastructure, Enhanced 911 (E911) positioning, and wireless local loop.

Smart Antennas. Trimble's family of smart antennas includes Palisade and AcutimeII. Smart antennas combine a GPS receiver and an antenna in one package. They provide OEMs and system integrators with a "plug-in" GPS module, allowing them to quickly and easily add GPS capability to their product lines. AcutimeII offers integrators a stand-alone GPS time source with one microsecond-level accuracy at a fraction of the cost of other time sources with similar performance. Palisade, based on Trimble's Sierra GPS technology, is an 8-channel receiver designed to provide accurate synchronization for wireless voice and data networks.

## Commercial Air Transport Products

Trimble 8100. This product family is an IFR-certified C129-A1 aviation navigation system and provides GPS position, velocity and course data, plus flight management information for the business, commercial and air transport markets. It incorporates an electronically replaceable navigation database. The system is capable of extensive interface with other compatible aircraft systems to drive flight and other instruments. The Trimble 8100 is approved for Primary Oceanic Navigation and nonprecision IFR Approaches.

Honeywell/Trimble HT9100/HT9000. These products are developed and marketed in partnership with Honeywell Incorporated and are true GPS FMS systems, that enable air transport customers to upgrade existing analog air transport and commercial aircraft to modern GPS navigation. Used by many of the world's leading airlines, these products are in continuous service around the world on a daily basis. The HT9100 is uniquely capable of interfacing to both analog and digital Flight Instruments and Autopilot Systems. The system also meets the requirement of TSO C-129 for GPS Navigation, as well as, Oceanic and Remote Primary Means Operations to FAA notice 8110.60.

## Military Aerospace Systems Products

ForceTM GPS Module Series. The Force series of GPS modules has been developed for embedded integration into high-performance land, sea, aircraft and missile applications. A variety of standard and custom form factors are available, including VME and SEM. Both Standard Positioning Service (SPS) and Precise Positioning Service (PPS) models are available, with the PPS models correcting for Selective Availability (SA) and using Anti-Spoof (A-S) augmented with Receiver Autonomous Integrity Monitoring (RAIM) to protect against satellite or system anomalies and signal spoofing. The newest models in this family are designed in accordance with the GPS Joint Program Office (GPS JPO) GPS Receiver Application Module (GRAM) Guidelines for military avionics platforms.

TA-1. This 12-channel, all-in-view, Precise Positioning Service (PPS) receiver is currently under review by the Federal Aviation Administration for certification under FAA TSO C-129a. It has state-of-the-art technology and shares a common architecture with other Trimble GPS PPS receivers. The TA-12 receiver was designed and developed for military and commercial aviation applications requiring a robust GPS receiver for integration with existing or new Flight Management Systems that required IFR certified operations and/or GPS capabilities.

Cargo Utility GPS Receiver (CUGR). Introduced in 1997, this product is a Dzus-mount (P)Y GPS navigational system for worldwide military aviation operations. It provides U.S. military helicopter pilots Precise Positioning Service GPS navigation capabilities, and meets the performance standards for Instrument Flight Rules for en route, terminal and non-precision approach phases of flight.

TRIMPACK and Centurion. These are portable, ruggedized, handheld GPS products that are approximately the size of a pair of binoculars (120 cubic inches). Position information is displayed on a four-line, 20 character-per-line, backlit LCD screen. Troops deployed in Operation Desert Storm used TRIMPACK units to determine their location in the featureless desert. The Centurion is an upgraded PPS receiver that provides full Selective Availability and Anti-Spoof performance.

TANS Series. The Trimble Advanced Navigation System (TANS) series of products includes a ruggedized sensor consisting of the basic GPS receiver, an antenna, and a digital interface to transmit GPS information to various other devices; a further ruggedized version with enhanced tolerance for vibration; and a version that is upgradable to PPS. The TANS series has been sold primarily to the military as a remote mounted GPS navigation sensor and for vehicles piloted from a remote station.

#### Sales and Marketing

The Company currently has nine regional sales offices in the United States and six in Europe, as well as offices in Australia, Canada, China, Japan, Mexico, New Zealand, Russia and Singapore. The Company has substantial variation in the needs of its sales and distribution channels, which are rapidly changing.

Domestic. The Company sells its products in the United States primarily through dealers, distributors and authorized representatives, supplemented and supported by the Company's direct sales force. The Company has also pursued alliances and OEM relationships with established foreign and domestic companies to assist it in penetrating certain markets.

International. Trimble markets to end-users through a network of more than 100 dealers and distributors in more than 85 countries. Distributors carry one or more product lines and are generally limited to selling either in one country or in a portion of a country. Trimble occasionally grants exclusive rights to market certain products within specified countries.

Sales to unaffiliated customers in foreign locations represented approximately 46%, 46%, and 47% of Trimble's total revenue in fiscal years 1998, 1997 and 1996, respectively. Sales to unaffiliated customers in Europe represented 25%, 22%, and 21% of net revenue in such periods, and sales to unaffiliated customers in the Far East represented 13%, 15%, and 19% of total revenue in such periods, respectively.

Support. The Company's general terms and conditions for sale of its products include a one-year warranty. Air Transport products, however, are generally sold with a basic three year warranty period with an additional two year warranty sold with some units, while select military programs may require extended warranty periods. The Company supports its products on a board replacement level from locations in the United Kingdom, Singapore, Japan, and New Zealand, as well as Sunnyvale, California. The Company's dealers and distributors also provide factory-trained third-party maintenance, including warranty and nonwarranty repairs. The Company reimburses dealers and distributors for all authorized warranty repairs they perform. The Company does not derive a significant portion of its revenues from support activities.

## Competition

\* In the markets currently being addressed by the Company, competition is intense. Within each of its markets, the Company has encountered direct competition from both foreign and domestic GPS suppliers, and expects that competition will continue to intensify. Indirect competition is also beginning to emerge, particularly from semiconductor and consumer electronic manufacturers that are anticipating the emergence of high-volume consumer-orientated GPS applications. Specific competitors in each of the markets the Company currently addresses are mentioned in the section "Industry Segments." Due to competitive pressure, prices of certain of the Company's products have declined substantially since their introduction, and increased competition is likely to result in further price reduction and loss of market share, which could adversely affect the Company's net revenue.

A number of these markets are also served primarily by non-GPS technologies, many of which are currently more accepted and less expensive than GPS-based systems. The success of GPS-based systems against these competing technologies depends in part on whether GPS systems can offer significant improvements in productivity, accuracy, and reliability in a cost-effective manner, as well as continued market education about such products.

The principal competitive factors in the markets that the Company addresses include ease of use, physical characteristics (including size, weight, and power consumption), product features (including differential GPS), product performance, product reliability, price, size of installed base, vendor reputation and financial resources. The Company believes that its products currently compete favorably with other products on most of the foregoing factors, though the Company may be at a competitive disadvantage against other companies having greater financial, marketing, service and support resources.

\* The Company believes that its ability to compete successfully in the future against existing and additional competitors will depend largely on its ability to provide systems and products having significantly differentiated features and improved cost-benefit ratios over those provided by competitors. There can be no assurances that the Company will be able to implement this strategy successfully, or that the Company's competitors, many of whom have substantially greater resources than the Company, will not apply those resources to compete successfully against the Company on the basis of systems and product features as well as cost-benefit ratios of their products.

## Research and Development

The Company's leadership position in commercial GPS technology is the result, in large part, of its strong commitment to research and development. The Company invests heavily in developing GPS technology, including the design of proprietary software and integrated circuits for GPS receivers. Moreover, Trimble develops substantial systems expertise and user interfaces for a variety of applications. Below is a table of Trimble's expenditures on research and development over the last three years.

Years ended	January 1, 1999	January 2, 1998	December 31, 1996
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(In thousands)			
Research and development	\$ 44,826	\$ 37,097	\$ 32,716

Often a new product is developed initially for an individual customer who is willing to purchase development-stage products. The Company has used feedback from such initial customers as a primary source of information in designing and refining its products-and in defining, with greater precision, customer needs in emerging market areas. During 1996, the Company established an advanced technology laboratory where it devotes a portion of its corporate research and development expenditures to advance core GPS technology and its integration into synergistic technologies such as communications, sensors, and computing technologies. These technological advances are sometimes supported financially through strategic alliances and partnerships.

\* The Company expects that a significant portion of future revenues will be derived from sales of newly introduced products. Consequently, the Company's future success depends in part on its ability to continue to develop and manufacture new competitive products with timely market introduction. Advances in product technology will require continued substantial investment in research and development in order to maintain and enhance the Company's market position and achieve high gross profit margins. Development and manufacturing schedules for technology products are difficult to predict, and there can be no assurance that the Company will achieve timely initial customer sales of new products. The timely availability of these products in volume, and their acceptance by customers, are important to the future success of the Company. In addition, certain of the Company's products are subject to governmental and similar certifications before they can be sold. For example, FAA certification is required for all aviation products. An inability or delay in obtaining such certifications could have an adverse effect on the Company's operating results.

#### Manufacturing

The Company seeks to be a low-cost producer and to serve the growth in demand for GPS-based products and systems through flexible automation of assembly lines, semiconductor integration, and the design of products around a common core of receivers.

The Company's manufacturing operations consist primarily of assembly and testing of products, material and procurement management, quality assurance and manufacturing engineering. The Company operates surface mount technology (SMT) assembly equipment in its manufacturing facility.

The Company maintains quality control procedures for its products, including testing during design, prototype, and pilot stages of production, inspection of incoming raw materials and subassemblies, and testing of finished products using automated test equipment in strife chambers.

The Company has historically manufactured its products in relatively small quantities. However, the Company must successfully transition to higher volume manufacturing. The Company is currently negotiating to commence contract manufacturing with respect to certain of its products.

The Company takes a modular and upgradable approach to its products, building around a common core of GPS receivers with customized software and hardware systems to analyze and present position data. The Company's core receiver technology has evolved since the development of its first GPS receiver product in 1984, as the Company has worked to reduce the size, weight, power consumption and cost of the basic GPS receiver. In this process, the Company has designed its own semi-custom, single-chip GPS processor. When possible, though, the Company attempts to utilize standard parts and components, including RAM and ROM devices that are available from multiple vendors.

#### Backlog

The Company believes that due to the volume of products delivered from shelf inventories and the shortening of product delivery schedules, backlog is not a meaningful indicator of future business prospects. Therefore, the Company believes that backlog information is not material to an understanding of its business.

#### Patents, Trademarks, and Licenses

The Company currently holds 215 U.S. patents and 18 related foreign patents that expire at various dates no earlier than 2005. It also has over 180 U.S. and foreign patent applications pending. The Company currently licenses certain peripheral aspects of its technology from Spectrum Information Technologies and GeoResearch.

Although the Company believes that its patents and trademarks may have value, there can be no assurance that those patents and trademarks, or any additional patents and trademarks that may be obtained in the future, will provide meaningful protection from competition. The Company actively develops and protects its intellectual property through a program of patenting, enforcement, and licensing.

The Company does not believe that any of its products infringe patent or other proprietary rights of third parties, but it cannot be certain that they do not do so. (See Note 15 to Consolidated Financial Statements.) If infringement is alleged, legal defense costs could be material, and there can be no assurance that the necessary licenses could be obtained on terms or conditions that would not have a material adverse effect on the Company.

In the second quarter of 1997, the Company expanded a prior license agreement with Pioneer Electronic Corporation for certain of the technology contained in its TANS product for inclusion in in-vehicle navigation products sold in Japan and received a \$2,222,000 licensing fee in consideration for the expansion of the original license.

The Company expects that it will enter into other licensing arrangements relating to its technologies.

"Trimble" with the sextant logo, "TrimbleNavigation," "GeoExplorer," "Flightmate," "GPS Total Station," "Scout GPS," and "Aspen" are trademarks of Trimble Navigation Limited, registered in the United States and other countries. Additional trademarks are pending. Trimble Navigation Limited acknowledges the trademarks of other organizations for their respective products or services mentioned in this document.

## Employees

As of January 1, 1999, the Company employed 1,291 persons: 346 in research and product development, 346 in sales and marketing, 423 in manufacturing, and 176 in administration and finance. Of these, 73 were located in Europe, 173 in New Zealand, 16 in Japan, 12 in Singapore, 2 in Australia, and 1,015 in the United States. The Company also currently employs temporary and contract personnel. Use of temporary and contract personnel has decreased over the last year, and is not included in the above headcount numbers. Competition in recruiting personnel is intense. The Company believes that its continued ability to attract and retain highly skilled management, marketing, and technical personnel is essential to its future growth and success. None of the Company's employees is represented by a labor union, and the Company has experienced no work stoppages.

The Company's success depends in part on the continued contribution and long-term effectiveness of its other executive officers and key technical, sales, marketing, support, research and development, manufacturing, and administrative personnel, many of whom would be difficult to replace.

Executive Officers of the Registrant

The names, ages, and positions of the Company's executive officers as of March 26, 1999 are as follows:

Name	Age	Position
Steven W. Berglund.....	47	President, Chief Executive Officer
Bradford W. Parkinson.....	64	Current Director, served as President and Chief Executive Officer from August 1998 to March 1999
Mary Ellen P. Genovese.....	39	Vice President, Finance, Chief Financial Officer and Corporate Controller
Charles E. Armiger, Jr.....	44	Vice President, Worldwide Sales
David M. Hall.....	50	Group Vice President, Mobile and Timing Technologies
Patrick J. Hehir.....	37	Senior Vice President, Chief Manufacturing Officer
John E. Huey.....	49	Treasurer
Ronald C. Hyatt.....	58	Group Vice President, Precision Positioning
Bruce E. Peetz.....	47	Vice President, Advance Technology and Systems

All officers serve at the discretion of the Board of Directors. There are no family relationships between any of the directors or executive officers of the Company.

Steven W. Berglund joined Trimble as President and Chief Executive Officer in March 1999. Mr. Berglund has a diverse background with experience in engineering, manufacturing, finance and global operations. Most recently, Berglund was president of Spectra Precision, Inc. Spectra Precision, with global sales of approximately \$200 million, develops and manufactures surveying instruments, laser based construction alignment instruments, and construction machine control systems. Spectra Precision is a subsidiary of Spectra-Physics AB. During his fourteen years within Spectra-Physics, which was an early Silicon Valley pioneer in the development of laser systems, Mr. Berglund held a variety of positions that included 4 years based in Europe. Prior to Spectra Precision, Mr. Berglund spent a number of years in the early 1980's at Varian Associates in Palo Alto where he held a number of planning and manufacturing roles. Varian is a technology company specializing in microwave communications, semiconductor manufacturing equipment, analytical instruments, and medical diagnostic equipment. Mr. Berglund began his career as a process engineer at Eastman Kodak in Rochester, New York. He attended the University of Oslo and University of Minnesota where he received a B.S. in chemical engineering in 1974. He received his MBA from the University of Rochester in 1977.

Bradford W. Parkinson has been a member of Trimble's Board of Directors since 1984 and has served as a consultant to the Company since 1982. Dr. Parkinson is currently a professor at Stanford University and holds the Edward C. Wells Endowed Chair in the Department of Aeronautics and Astronautics. He was on leave of absence from Stanford while serving as Trimble's President and CEO from August 1998 to March 1999. Prior to joining Trimble, Dr. Parkinson served

as an Air Force colonel. He created and ran the NavStar GPS Joint Program Office from 1972 through 1978, during which time he received the Defense Department Superior Performance Award as the best program director in the Air Force. As the program director, he led the definition, development, launch, and test of GPS, including five types of user equipment. After retiring from the Air Force, he became a professor of mechanical engineering at Colorado State University in 1978 for one year. Beginning in 1979, Parkinson served as group vice president for Rockwell International. There he directed business development and a 300-person advanced engineering organization. From 1980 to 1984 he was a group vice president and general manager for Intermetrics, where he directed five divisions. He also was president of the industrial subsidiary, Plantstar, which sold productivity monitoring equipment. Dr. Parkinson is a distinguished graduate of the U.S. Naval Academy and has an M.S. degree in aeronautics and astronautics from Massachusetts Institute of Technology (MIT) and a Ph.D. in aeronautics and astronautics from Stanford University. He is a distinguished graduate of the U.S. Naval War College; was head of the department of aeronautics and computer science at the U.S. Air Force Academy; and was an academic instructor for the USAF Test Pilot School.

Mary Ellen P. Genovese joined Trimble as controller of manufacturing operations in December 1992. From 1994 to 1997 she served as business unit controller for software and component technologies, and for the tracking and communications business unit. She was appointed corporate controller in October 1997 and vice president of finance and corporate controller in February 1998. Currently, she is the interim chief financial officer. Prior to joining Trimble, Mrs. Genovese was chief financial officer and president for Minton Co., a distributing company to the commercial building market, from 1991 to 1992. In her position as chief financial officer she was responsible for the accounting, management reporting and bank and investor financing for the company. In March of 1992, the board of directors asked her to assume the role of president to reorganize the company, including the divestiture of the manufacturing operations. Prior to 1991, she worked for 10 years with General Signal Corporation. She was appointed European financial controller in July 1990, where she was responsible for the company's three European operations, Germany, France and the United Kingdom. From 1988 to 1990 she served as unit financial officer, for General Signal's Semiconductor Systems Division. She held several other management positions including materials manager, controller of manufacturing operation and international projects controller for General Signal's Ultratech Stepper Division from 1984 to 1988. Mrs. Genovese is a Certified Public Accountant and received her B.S. in accounting from Fairfield University in Connecticut in 1981.

Charles E. Armiger, Jr. joined Trimble in January 1989 as Sales and Marketing Manager for aviation products. From January 1991 to December 1993, he served as Director of U.S. Domestic Sales. Mr. Armiger held the post of Director of Sales for North American West from January 1993 to November 1994. Then in December 1994 he moved to Trimble's European office in Hook, England, to serve as Director of Sales for Europe, the Middle East and Africa. In September 1996, he was appointed to serve as Vice President for Commercial Systems Sales. In September 1998, Mr. Armiger was appointed Vice President of Worldwide Sales. Prior to joining Trimble, he was Director of Sales and Marketing for ARNAV Systems, Inc. He received a B.S. degree in Business from the University of the State of New York, Regents College, in 1996.

David M. Hall joined Trimble in February 1994 as Managing Director, OEM products. In November 1996 he was appointed Vice President and General Manager of the Software and Component Technologies business unit, focusing on application and operating system software, component board level, and chipset volume aspects of the GPS business. In November 1998 he was appointed Group Vice President of the Mobile and Timing Technologies business unit, managing mobile positioning and communications, timing, automotive, military, and commercial aviation businesses. Previously, he worked for Raychem Corporation for twenty-one years in a variety of positions and divisions. He served as Director of Sales and Marketing for the Automotive Division, National Distribution Manager for the Electronics Sector, and Director of Marketing and Product



Management for the Interconnect Systems Division, as well as District Sales Manager, Area Sales Manager, and Operations Manager. Mr. Hall received his B.S. degree in Industrial Technology in 1971 and his MBA in Marketing and Finance in 1973 from the California Polytechnic State University in San Luis Obispo, California.

Patrick J. Hehir joined Trimble in February 1999 as senior vice president and chief manufacturing officer. Prior to Trimble, Hehir worked for Dovatron International where he held several positions during his eight year tenure including, quality/program manager, director of operations, executive director of operations and vice president of worldwide business development. Dovatron, a \$1 billion international manufacturing company with offices in Ireland, Mexico, Asia, Eastern Europe and the U.S., serves clients such as Hewlett-Packard, Hughes Corporation, I.B.M., and Lucent Technologies. Prior to Dovatron, he worked for Western Digital in several positions including, process/quality engineer, quality improvement process coordinator, senior quality engineer and quality manager. Hehir also held process engineering, production and quality positions at Pulse Engineering in Ireland. Hehir has a broad range of educational qualifications from technical colleges and universities in Ireland and the United Kingdom. He graduated from Galway's Institute of Technology with an electronic engineering certificate in 1981. He received a quality assurance post-graduate diploma from the Galway's University College in 1984. In 1987, Hehir received a production and operations management certificate from the United Kingdom's Institute of Industrial Engineering, and a post-graduate diploma in health, safety and social welfare from Cork's University College in 1993. Hehir also served on Ireland's technical committee for the development of the environmental system standard, ISO 14000, published by the International Standards Organization.

John E. Huey joined Trimble in 1993 as Director Corporate Credit and Collections, promoted to Assistant Treasurer in 1995 and Treasurer in 1996. Past experience includes two years with ENTEX Information Services, five years with National Refractories & Minerals Corporation (formerly Kaiser Refractories), and thirteen years with Kaiser Aluminum & Chemical Sales, Inc. He has held positions in Credit Management, Market Research, Inventory Control, Sales and as an Assistant Controller. Mr. Huey received his B.A. degree in Business Administration in 1971 from Thiel College in Greenville, Pennsylvania and an MBA in 1972 from West Virginia University in Morgantown, West Virginia.

Ronald C. Hyatt joined Trimble in August 1983 as Director of Instrumentation Products. In 1985, he was appointed Vice President for Surveying and Mapping Products, managing the marketing and application software development aspects of the business until February 1993. In January 1997 he returned to the Company as Senior Vice President of Trimble Labs, focusing on next-generation ASIC developments. In November 1998, Mr. Hyatt was promoted to Group Vice President of Precision Positioning. He is responsible for managing land survey, marine, marine survey, mapping/GIS, and mining, construction, and agricultural applications. Prior to joining Trimble, Mr. Hyatt worked for Hewlett-Packard from 1964 to 1983 in various engineering and management positions, focusing on precision frequency and time instrumentation. Mr. Hyatt received his B.S. degree in electrical engineering from Texas Tech University in 1962 and his M.S. degree in electrical engineering from Stanford University in 1963.

Bruce E. Peetz joined Trimble in June 1988 as Program Manager for GPS Systems. From January 1990 to January 1994 he served as Development Manager for commercial dual-frequency products, and from January 1993 to December 1995 he served as Engineering Manager for Surveying and Core Engineering. In January 1996 he was appointed General Manager of the Land Surveying unit, and from February 1998 started the Advanced Systems division as General Manager. In October 1998 he was named Vice President of Advanced Technology and Systems, consolidating Systems and Trimble Laboratories. Prior to joining Trimble, Mr. Peetz served in a variety of engineering and management positions during eleven

years at Hewlett Packard. Mr. Peetz received his BSEE from the Massachusetts Institute of Technology (MIT) in 1973, and did graduate work at UCLA.

#### Item 2. Properties

The Company currently leases and occupies sixteen buildings in Sunnyvale, California, totaling approximately 396,000 square feet. The leases on these buildings expire at various dates through 2003. In addition, the Company leases and occupies three buildings in Austin, Texas, totaling approximately 50,600 square feet, to manufacture GPS-based aviation products; the leases expire at various dates through 2001. The Company also leases a 45,000-square-foot facility in Christchurch, New Zealand, for software development. The Company's two largest international sales offices are those in the United Kingdom (13,700 square feet) and Japan (5,900 square feet). In addition, the Company leases sales offices in Australia, Brazil, China, France, Germany, Mexico, Spain, Singapore, and Russia, and in various cities throughout the United States. The Company's international office leases expire at various dates through 2005. Certain of the leases have renewal options. The Company believes that its facilities are adequate to support its current and anticipated near-term future operations.

#### Item 3. Legal Proceedings

The information with respect to legal proceedings required by this item is included in Part II, Item 8, Note 15 to the Consolidated Financial Statements, hereof under the caption "Pending Matters."

#### Item 4. Submission of Matters to a Vote of Security Holders

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity and Related Stockholder Matters

The Company's Common Stock is traded on the Nasdaq National Market under the symbol TRMB. The following table sets forth, for the quarters indicated, the range of high and low closing sales prices for the Company's Common Stock on the Nasdaq National Market:

	High	Low
1998:		
Fourth	10 1/4	7
Third	16 3/8	9 1/4
Second	19 13/16	13 7/8
First	24 3/8	17 1/4
1997:		
Fourth	24 5/16	18 1/8
Third	21 5/8	16 1/2
Second	19	10 7/8
First	14 3/4	11 1/4

The Company had 1,664 shareholders of record as of March 15, 1999.

The Company's stock price is subject to significant volatility. If revenues or earnings fail to meet the expectations of the investment community, there could be an immediate and significant impact on the trading price for the Company's stock. Due to stock market forces that are beyond the Company's control, and due also to the nature of the Company's business, such shortfalls can be sudden.

The Company has never paid cash dividends on its Common Stock. The Company presently intends to retain earnings to finance the development of the Company's business, and does not presently intend to declare any cash dividends in the foreseeable future. Under the Company's current \$50,000,000 revolving line of credit agreement, the Company is restricted from paying dividends without the lender's consent. Under the Company's Note Purchase Agreement, pursuant to which the Company issued \$30,000,000 of its subordinated promissory notes in June 1994, the Company is also restricted from paying dividends. See Notes 5 and 7 to the Consolidated Financial Statements contained in Item 8.

## Item 6. Selected Financial Data

## HISTORICAL FINANCIAL REVIEW

## Summary Consolidated Statements of Operations Data

Years ended	January 1, 1999	January 2, 1998	December 31, 1996	December 31, 1995	December 31, 1994
(In thousands, except per share data)					
Revenue	\$ 260,279	\$ 258,894	\$ 221,924	\$ 221,236	\$ 159,264
Operating expenses					
Cost of sales	134,723	118,903	104,881	93,544	60,193
Research and development	44,826	37,097	32,716	29,869	22,772
Sales and marketing	61,227	56,457	60,358	59,317	48,241
General and administrative	32,403	26,592	28,452	22,141	10,872
Restructuring charges	10,280	-	2,134	-	-
Total operating expenses	283,459	239,049	228,541	204,871	142,078
Operating income (loss) from continuing operations	(23,180)	19,845	(6,617)	16,365	17,186
Nonoperating income (expense), net	(2,041)	1,172	706	773	(3,057)
Income (loss) before income taxes from continuing operations	(25,221)	21,017	(5,911)	17,138	14,129
Income tax provision (benefit)	1,400	2,496	(300)	3,121	2,391
Net income (loss) from continuing operations	\$ (26,621)	\$ 18,521	\$ (5,611)	\$ 14,017	\$ 11,738
Loss from discontinued operations (net of tax)	(\$6,911)	(\$9,242)	(\$5,691)	(\$2,756)	(\$1,714)
Estimated loss on disposal of discontinued operations (net of tax)	(\$19,862)	-	-	-	-
Net income (loss)	\$ (53,394)	\$ 9,279	(11,302)	\$ 11,261	\$ 10,024
Basic net income (loss) per share from continuing operations	\$ (1.19)	\$ 0.83	\$ (0.25)	\$ 0.70	\$ 0.64
Basic net income (loss) per share from discontinued operations	(1.19)	(0.41)	(0.26)	(0.14)	(0.09)
Basic net income (loss) per share	\$ (2.38)	\$ 0.42	\$ (0.51)	\$ 0.56	\$ 0.55
Shares used in calculating basic earnings per share	22,470	22,293	22,005	19,949	18,340
Diluted net income (loss) per share from continuing operations	\$ (1.19)	\$ 0.80	\$ (0.25)	\$ 0.66	\$ 0.62
Diluted net income (loss) per share from discontinued operations	(1.19)	(0.40)	(0.26)	(0.13)	(0.09)
Diluted net income (loss) per share	\$ (2.38)	\$ 0.40	\$ (0.51)	\$ 0.53	\$ 0.53
Shares used in calculating diluted earnings per share	22,470	22,947	22,005	21,318	19,053
Cash dividends per share	\$ -	\$ -	\$ -	\$ -	\$ -
Selected Consolidated Balance Sheet Data					
As of	January 1, 1999	January 2, 1998	December 31, 1996	December 31, 1995	December 31, 1994
(In thousands)					
Working capital	\$ 81,956	\$ 131,272	\$ 121,026	\$ 134,602	\$ 68,486
Total assets	156,279	207,663	189,841	196,763	109,363
Noncurrent portion of long-term debt	31,640	30,697	30,938	29,739	31,736
Shareholders' equity	\$ 74,691	\$ 139,483	\$ 124,045	\$ 129,937	\$ 53,574

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Management Changes and Subsequent Events

Charles R. Trimble, the Company's founder, resigned as President and Chief Executive Officer in August of 1998. Mr. Trimble remains on the Company's Board of Directors and serves as a consultant to the Company. Dr. Bradford W. Parkinson, a member of the Board of Directors since 1984 and a consultant to the Company since 1982, assumed the role of President and CEO while the Company conducted a search for a permanent replacement. On March 17, 1999, subsequent to the financial statement date Steven W. Berglund joined the Company as President and CEO. Dr. Robert S. Cooper, a member of the Company's Board of Directors since 1989, was appointed to serve as the Chairman of the Board of Directors in August of 1998.

During the third quarter of fiscal 1998, the Board of Directors performed an intensive investigation and review of each of the individual business lines of the Company. Under the direction of Dr. Parkinson, the Company has undertaken actions that focus on the review, restructuring and elimination of unprofitable businesses, the implementation of stronger cost controls, the reorganization of business units and the improvement of manufacturing efficiencies. As part of the changes taken to strengthen the Company's competitive position in the marketplace, a decision was made to discontinue the Company's General Aviation Division, located in Austin, Texas. In the third quarter of 1998, the Company incurred a charge of \$19.9 million related to the discontinued operation. (See Note 3 of the Consolidated Financial Statements).

In the third quarter and continuing in the fourth quarter of fiscal 1998, Trimble realigned its management structure, reduced its worldwide workforce by approximately 8 percent, reduced its facilities and wrote down certain assets. (See note 6 of the Consolidated Financial Statements). The Company took steps to further strengthen and improve employee relationships and incentives by extending the period of exercisability for all current outstanding employee stock options from five years and three months to ten years, effective as of November 3, 1998. The Company is evaluating further cost reduction programs to improve its overall cost structure.

The realignment of the management structure is expected to strengthen the relationships between the Company's businesses and product lines and to provide the Company with a better focus on the markets it serves. The Company realigned its Business Units, consolidated its worldwide sales team and created an international business development function.

The Company's restructuring included renaming its Business Units. The Commercial Systems Group has been renamed Precision Positioning Group (PPG). The Software and Component Technologies group has been renamed Mobile and Timing Technologies (MTT). The Aerospace Group no longer exists as a separate unit and the General Aviation Division has been discontinued. (See Note 3 of the Consolidated Financial Statements). Mobile Positioning products previously reported under the Commercial System Group are now managed by MTT. Air transport systems and military systems products previously managed by the Aerospace Group are now managed by MTT. PPG continues to be responsible for the management of Land Surveying, Mapping and GIS, Marine Surveying and Mining, Construction and Agriculture (previously referred to as Precise Positioning). MTT continues to be responsible for the management of Automotive and Timing. The discussions throughout this document are based on the management structure that existed at the end of the year.

The Board of Directors has declared a dividend distribution of Preferred shares Purchase Rights to shareholders of record on March 1, 1999.

The Rights are designed to protect and maximize the value of your interest in the Company. We believe that the Rights Plan, while not intending to prevent a takeover, will provide protection to you, our shareholders, from the abusive and coercive tactics that often occur in takeover attempts.

The Rights contain provisions to protect shareholders in the event of an unsolicited takeover attempt through such methods as a gradual accumulation of shares in of 15% or more of the outstanding stock followed by a two-tier tender offer or other tactics that do not treat all shareholders equally. These tactics may unfairly pressure shareholders, deprive them of the full value of their shares, or squeeze them out of their investment without giving them any real choice. With over 2,000 companies having established rights plans to protect shareholders, we consider the Rights Plan to be the best available means of protecting the full value of your investment in the Company, while not preventing a fair acquisition offer for the Company.

The Rights will initially trade with shares of the Company's Common Stock and have no impact on the way in which you can presently trade the Company's shares. As explained in detail in the attached Summary of Rights, the Rights are not exercisable until ten days after a person or group announces acquisition of 15% or more of the Company's outstanding Common Stock or the commencement of a tender offer which would result in ownership of the person or group of 15% or more of the outstanding stock.

During fiscal year 1997, and effective as of the Company's 1997 fiscal year-end, the Company changed from a calendar fiscal year-end and adopted a 52-53 week fiscal year ending on the Friday nearest to December 31, which for fiscal 1998 was January 1, 1999. The Company does not expect the effects of any differences due to the change of fiscal years to have a material impact on the Company's financial position, results of operations, or cash flows. The Company has not restated or adjusted its prior financial statements on this new fiscal year basis. (See Note 1 of the Consolidated Financial Statements).

#### RESULTS OF CONTINUING OPERATIONS

In 1998, the Company's annual revenues from continuing operations increased slightly to \$260.3 million from \$258.9 million in 1997. In 1998, the Company had a net loss from continuing operations of \$26.6 million, or (\$1.18) diluted loss per share, compared to net income from continuing operations of \$18.5 million, or \$0.81 diluted earnings per share, in 1997. The total net loss for fiscal 1998, including discontinued operations, was \$53.4 million, or (\$2.38) diluted loss per share.

The following table sets forth, for the periods indicated, certain financial data as a percentage of total revenue:

Years ended	January 1, 1999	January 2, 1998	December 31, 1996
Revenue	100%	100%	100%
Operating expenses:			
Cost of sales	52%	46%	47%
Research and development	17%	14%	15%
Sales and marketing	24%	22%	27%
General and administrative	12%	10%	13%
Restructuring charges	4%	-	1%
Total operating expenses	109%	92%	103%
Operating income (loss) from continuing operations	(9%)	8%	(3%)
Nonoperating income (expense), net	(1%)	-	-
Income (loss) before income taxes from continuing operations	(10%)	8%	(3%)
Income tax provision	1%	1%	0%
Net income (loss) from continuing operations	(10%)	7%	(3%)
Loss from discontinued operations (net of tax)	(3%)	(4%)	(2%)
Estimated loss on disposal of discontinued operations (net of tax)	(8%)	-	-
Net income (loss)	(21%)	4%	(5%)

Revenue. In 1998, total revenue increased to \$260.3 million from \$258.9 million in 1997, which represents a percentage increase of less than 1%. Total revenue increased in 1997 to \$258.9 million from \$221.9 million in 1996, which represents a percentage increase of 17%. The following table breaks out the Company's revenues by industry market:

	January 1, 1999	% Total Revenue	January 2, 1998	% Total Revenue	December 31, 1996	% Total Revenue
(In thousands)						
Precision Positioning Group	\$ 165,951	64%	\$ 142,449	55%	\$ 140,934	64%
Mobile and Timing Technologies	94,328	36%	116,445	45%	80,990	36%
Total revenue	\$ 260,279	100%	\$ 258,894	100%	\$ 221,924	100%

#### Precision Positioning Group

The Precision Positioning Group revenues had a growth rate of 16% in 1998 over 1997. The 1998 increase compared to 1997 is primarily from revenues in the land surveying, marine surveying, mapping and GIS systems, and mining, construction, and agriculture markets. The increase in land surveying was due to the continued strong customer acceptance of the Company's GPS Total Station 4800 and 4700 products. Also, the increase in marine survey, mapping and GIS and mining, construction and agriculture reflects increased demand for these products.

In the fourth quarter of 1998, the FCC suspended the processing of certain Real-time Kinematic product line license applications pending a resolution of certain frequency interference issues which it has reviewed with the Company. The FCC has recently reinstated the processing of these license applications, based upon the Company providing certain upgrades at its cost to purchasers of earlier products, making certain product modifications intended to decrease the likelihood of any radio frequency interference and providing

guidance to users of its equipment in avoiding the interference with these users of the frequency spectrum and the agreement to help teach customers to be good radio citizens.

The Precision Positioning Group revenues had a growth rate of 1% in 1997 over 1996. The 1997 increase, compared to 1996, was primarily in mapping and GIS systems, as well as mining, agriculture and construction markets. The increase in mapping and GIS systems market came from strong sales of the Pathfinder product line, and mining, construction, and agriculture products continued to grow from 1996.

#### Mobile and Timing Technologies

The Mobile and Timing Technologies revenues decreased 19% in 1998 from 1997. The 1998 decrease is primarily in automotive, commercial air transport and military aerospace systems. The softness in the automotive market was due to the financial difficulties of a major customer and a delay in new product introductions. The commercial air transport decrease was due to less than anticipated demand from Honeywell and the military aerospace system decrease was due to the large dollar shipment on the CUGR contract in the fourth quarter of 1997, which was not repeated in 1998.

\* Military sales are highly dependent on contracts that are subject to government approval and are, therefore, expected to continue to fluctuate from period to period. The Company believes that opportunities in this market have been substantially reduced by cutbacks in U.S. and foreign military spending.

The Mobile and Timing Technologies revenues had a growth rate of 44% in 1997 over 1996. The increase was primarily in the mobile positioning, commercial air transport, and military aerospace systems.

The Mobile and Timing Technologies increase in 1997 was due primarily to the Company recognizing \$1.8 million in revenues from a development agreement in connection with an irrevocable nonrefundable, nonrecurring engineering fee recorded in the third quarter of 1997 and a nonrecurring one-time \$2.2 million technology license fee recorded in the second quarter of 1997 from Pioneer Electronic Corporation in connection with expansion of its prior license for in-car navigation. Mobile and Timing Technologies revenues also increased in 1997 compared to 1996 due to the resumption of shipments in 1997 to American Mobile Satellite Corporation (AMSC), a company based in Reston, Virginia, that provides a variety of voice and data services via satellite. In March 1995, the Company signed a large contract for the supply of Galaxy/GPS land mobile satellite terminals to AMSC. Late in 1995, AMSC requested that the Company cease delivery, due in part to delays in AMSC's completion of software. Shipments under the original contract were halted in the fourth quarter of 1995, and the contract was amended. Mobile and Timing Technologies revenues in 1997 included \$6,400,000 in sales to AMSC. A total of \$4,200,000 for product revenues shutdown fees and contract renegotiation fees was recognized in 1996.

The increase in commercial air transport and military aerospace systems in 1997 from 1996 was primarily due to shipments to the government under the CUGR program, as well as strong sales for the Honeywell-Trimble product (HT9100) and strong sales for military aerospace products.



## Export Sales

\* Export sales from domestic operations, as a percentage of total revenue, were 34% in 1998, 28% in 1997, and 25% in 1996. Sales to unaffiliated customers in foreign locations, as a percentage of total revenue, were 46% in 1998, 46% in 1997, and 47% in 1996. The Company anticipates that export revenue and sales made by its subsidiaries in locations outside the U.S. will continue to account for a significant portion of its revenue. For this reason, the Company is subject to the risks inherent in these sales, including unexpected changes in regulatory requirements, exchange rates, governmental approval, and tariffs or other barriers. Even though the U.S. government announced on March 29, 1996, that it would support and maintain the GPS system, as well as eliminate the use of Selective Availability (S/A)-a method of degrading GPS accuracy, there may be a reluctance in certain foreign markets to purchase products based on GPS technology, given the control of GPS by the U.S. Government. The Company's results of operations could be adversely affected if the Company were unable to continue to generate significant sales in locations outside the U.S.

No single customer, including the U.S. Government and its agencies, accounted for 10% or more of the Company's total revenues in 1998, 1997 or 1996. It is possible, however, that in future periods the failure of one or more large customers to purchase products in quantities anticipated by the Company may adversely affect the results of operations.

\* Gross Margin. Gross margin varies due to a number of factors, including product mix, domestic versus international sales, customer type, the effects of production volumes and fixed manufacturing costs on unit product costs, and new product start-up costs. In 1998, the gross margin percentage on product sales was 48%, compared with 54% in 1997 and 53% in 1996. The decrease in the gross margin percentages primarily reflects increased labor costs from new product introductions, expediting fees, inventory write-downs, and unabsorbed fixed overhead due to lower than expected volumes. The 1997 margins were enhanced by the positive impact of nonproduct revenues of \$2.2 million recognized from Pioneer Electronic Corporation and from a development agreement in connection with an irrevocable nonrefundable, nonrecurring engineering fee of \$1.8 million. In 1996, the Company also recorded nonrecurring fees from AMSC of \$2.5 million; however, there can be no assurance that similar items will recur in the future. In addition, because of product mix changes within and among the industry markets, market pressures on unit selling prices, fluctuations in unit manufacturing costs, and other factors, positive future gross margins cannot be assured. While Precision Positioning segment products have the highest gross margins of all the Company's products, their margins have decreased, primarily in response to competition. The Company expects competition to increase in its Precision Positioning segment, and it is therefore likely that further price erosion will occur, with consequent lower gross margin percentages.

\* The Company expects that in the future a higher percentage of its business will be conducted through alliances with strategic partners such as Honeywell and Caterpillar. As a result of volume pricing and the assumption of certain operating costs by the partner, margins on this business are likely to be lower than sales directly to end-users.

Operating Expenses. The following table shows operating expenses for the periods indicated. It should be read in conjunction with the narrative descriptions of those operating expenses below:

Years ended	January 1, 1999	January 2, 1998	December 31, 1996
(In thousands)			
Research and development	\$ 44,826	\$ 37,097	\$ 32,716
Sales and marketing	61,227	56,457	60,358
General and administrative	32,403	26,592	28,452
Restructuring charges	10,280	-	2,134
Total	\$ 148,736	\$ 120,146	\$ 123,660

Research and Development. Research and development spending increased in absolute dollars during 1998, representing 17% of revenue, compared with 14% in 1997 and 15% in 1996. The higher research and development expenses in 1998 are due to the Company receiving fewer funds from cost reimbursement projects in 1998 as compared with 1997.

The dollar increase from 1996 to 1997 is due primarily to an increase in personnel and the related expenses that accompany such an increase in the number of employees. There was also an increase in the number of specialized engineering consultants and temporary employees.

The increase in research and development is part of the Company's continuing aggressive development of future products.

\* Sales and Marketing. Sales and marketing expenses increased during 1998, representing 24% of revenue, compared with 22% in 1997 and 27% in 1996. The primary reason for the dollar and percentage increases in expenses from 1997 to 1998 is an increase in personnel and related expenses, that accompany an increase in the number of employees. In addition, the Company experienced increases in expenses related to trade shows, advertising, and demo equipment expenses.

The decrease in sales and marketing expense in 1997 compared to 1996 was due to a decrease in personnel because of the Company's 1996 restructuring activities and advertising costs.

\* The Company's future growth will depend in part on the timely development and continued viability of the markets in which the Company currently competes, and on the Company's ability to continue to identify and exploit new markets for its products. In addition, the Company has encountered significant competition in selected markets, and expects such competition to intensify as the market for GPS applications receives acceptance. Several of the Company's competitors are major corporations with substantially greater financial, technical, marketing and manufacturing resources. Increased competition may result in reduced market share and is likely to result in price reductions of GPS-based products, which could adversely affect the Company's revenues and profitability.

General and Administrative. General and administrative expenses increased during 1998, representing 12% of revenue, compared with 10% in 1997; they remained flat as a percentage of revenue compared to 1996 at 12%. The increase from 1997 to 1998 is due primarily to an increase in personnel and the

related expenses, that accompany an increase in the number of employees and consultants, as well as an increase in outside services related to legal fees associated with certain litigation matters during 1998.

The 1997 decrease from 1996 in general and administrative expenses was due primarily to decreases in outside services related to legal fees associated with certain arbitration and litigation matters during 1996.

Restructuring Charges. As noted in Note 6 to the Consolidated Financial Statements during the year ended January 1, 1999, the Company recorded a restructuring charge of \$10.3 million classified in operating expenses. These charges are a result of the Company's reorganization to improve business processes and to decrease organizational redundancies, to improve management accountability and to improve the Company's focus on profitable operations. As a result of the reorganization, the Company has downsized its operations, including reducing headcount and facilities space usage, and canceled its enterprise wide information system project and certain research and development projects. The impact of these decisions is that significant amounts of the Company's fixed assets, prepaid expenses, and purchased technology have been impaired and certain liabilities incurred. The Company has written down the related assets to their net realizable values and made provisions for the estimated liabilities.

The elements of the charges in 1998 and the amounts remaining at January 1, 1999, on the balance sheet are as follows (in thousands):

	Total charged to expense	Amounts paid/ written off in 1998	Remaining in accrued liabilities as of January 1, 1999
Employee termination benefits	\$ 2,864	\$ (1,200)	\$ 1,664
Facility space reductions	1,061	-	1,061
Enterprise wide information system abandonment	6,360	(4,895)	1,465
Subtotal	\$ 10,285	\$ (6,095)	\$ 4,190

The cash expenditures associated with the remaining obligations will occur primarily in fiscal 1999.

Nonoperating income (expense), net. Nonoperating income (expense), net, includes interest income and expense, as well as gains and losses on foreign currency transactions.

Foreign exchange gains were \$234,000 in 1998 and 1997, compared with a loss of \$4,000 in 1996. The Company's policy is to hedge its exposure to foreign currency transactions to minimize the effect of changes in foreign currency exchange rates on consolidated results of operations. Gains and losses arising from foreign currency forward contracts offset gains and losses resulting from the underlying hedged transactions.

Interest income decreased both in 1998 from 1997 and in 1997 from 1996 because of lower interest income received on cash and short-term investments due to lower average balances for the year over the prior year.

Interest expense decreased slightly in 1998 due to lower fees on unused lines of credit. Interest expense includes interest on a \$30.0 million note issued in August 1995, and fees on unused lines of credit. (See Notes 5 and 7 to the Consolidated Financial Statements for details of long-term debt and lines of credit).

Income Tax Provision. The Company's effective tax rates from continuing operations for fiscal years 1998, 1997 and 1996 are (6%), 12% and 5%, respectively. The 1998 and 1996 income tax rates differ from the federal statutory rate of 35% due to foreign taxes and the inability to realize the benefits of the net operating losses. The 1997 income tax rate is less than the federal statutory rate primarily due to the realization of previously reserved deferred tax assets.

Inflation. The effects of inflation on the Company's financial results have not been significant to date.

#### LITIGATION

\* The Company is involved in a number of legal matters as discussed in Note 15 to the Consolidated Financial Statements. While the Company does not expect to suffer significant adverse effects from these litigation matters or from unasserted claims, the nature of litigation is unpredictable and there can be no assurance that it will not do so.

#### Liquidity and Capital Resources

\* At January 1, 1999, the Company had cash and cash equivalents of \$40.9 million and \$16.3 million in short-term investments. The Company's cash and cash equivalents and short-term investments have been reduced from the prior year, due primarily to the Company's stock repurchase program (see additional information below) and acquisitions of capital equipment. The Company's long-term debt consisted primarily of a \$30.0 million note obligation due in 2001, and the Company had no debt outstanding under its \$50,000,000 unsecured line of credit. The Company has an amount of \$150,000 outstanding under a separate \$5,000,000 line of credit. The Company has relied primarily on cash provided by operating and financing activities and net sales of short-term investments to fund capital expenditures, the repurchase of the Company's common stock (see further explanation below), and other investing activities. Management believes that its cash, cash equivalents and short-term investment balances, together with its existing credit line, will be sufficient to meet its anticipated cash needs for at least the next twelve months.

\* In 1998, the cash provided in operating activities was \$7.0 million, as compared to cash used of \$2.1 million in the corresponding period in 1997. Cash provided by operating activities in 1998 arose from decreases in accounts receivable and inventories and increases in accrued liabilities offset by the Company's net loss net of non-cash charges. Inventory related to continuing operations as of January 1, 1999, decreased by \$5.2 million from the 1997 year-end levels, primarily due to a focused effort by the Company to reduce inventory by supply chain synchronization; reduce lead and cycle times; simplifying product lines; and implementing tighter control over the material forecasting process. The Company's ability to continue to generate cash from operations will depend in large part on revenues, the rate of collections of accounts receivable, and management of inventory levels.

Cash provided by sales of common stock in 1998 represents the proceeds from purchases made pursuant to the Company's stock option plan and employee stock purchase plan, and totaled \$5.0 million for the year ending January 1, 1999.

In August 1997, the Company entered into a three-year \$50,000,000 unsecured revolving credit facility with four banks (the "Credit Agreement"). This credit facility replaced the previous two-year \$30,000,000 unsecured line that expired in August 1997. The Credit Agreement enables the Company to borrow up to \$50,000,000, provided that certain financial and other covenants are met. Under a separate agreement, the Company has an additional \$5,000,000 line of credit provided only by the lead bank under the Credit Agreement for "Letter of

Credit" purposes, and this is also subject to the covenants in the main facility. The Credit Agreement provides for payment of a commitment fee of 0.25% and borrowings to bear interest at 1% over LIBOR if the total funded debt to EBITDA is less than or equal to 1.00 times; 0.3% and borrowings to bear interest at 1.25% over LIBOR if the ratio is greater than 1.00 times and less than or equal to 2.00 times; or 0.4% and borrowings to bear interest at 1.75% over LIBOR if the ratio is greater than 2.00 times. In addition to borrowing at the specified LIBOR rate, the Company has the right to borrow with interest at the higher of (i) one of the bank's annual prime rate and (ii) the federal funds rate plus 0.5%. To date, the Company has not made any borrowings under the lines. The Company is restricted from paying dividends under the terms of the Credit Agreement.

As of October 27, 1998, the Agent and Lenders of the \$50,000,000 unsecured revolving credit facility granted a limited waiver of the Company's compliance with various loan covenants as of October 2, 1998, until December 15, 1998. The Agent and Lenders granted a second limited waiver (an extension of the first limited waiver) for the Company's compliance with various loan covenants which extended from January 1, 1999, until February 16, 1999. As of February 16, 1999, the Company, the Agent and the Lenders agreed to new covenants which will be tested by a compliance document as of April 2, 1999, and for the life of the loan which expires in August of 2000. The \$50,000,000 revolving credit facility was modified to include the \$5,000,000 line of credit for Letter of Credit purposes to simplify the entire arrangement, as less than \$150,000 was being utilized under the separate facility as of January 1, 1999. To date, the Company has not made any borrowings under the \$50,000,000 revolving credit facility.

The Company announced in February 1996 that it had approved a discretionary program whereby up to 600,000 shares of its common stock could be repurchased on the open market by the Company to offset the potential dilutive effects to earnings (loss) per share from the issuance of additional stock options. In 1998, the Company approved the repurchase of an additional 1.6 million shares under the discretionary program. The Company intends to use existing cash, cash equivalents and short-term investments to finance any such stock repurchases under this program. During 1996, the Company purchased 250,000 shares at a cost of \$3.5 million. During 1997, the Company purchased 139,500 shares at a cost of \$1.8 million. During 1998, the Company purchased 1.08 million shares at a cost of \$16.1 million.

\* The Company presently expects 1999 capital expenditures to be approximately \$10.0 million, primarily for computer equipment, software, and leasehold improvements associated with business expansion.

The Company is continually evaluating potential external investments in technologies related to its business and, to date, has made relatively small strategic investments in a number of GPS-related technology companies. There can be no assurance that any such outside investments made to date, or that any potential future investments, will be successful.

The Company has evaluated the issues raised by the introduction of the Single European Currency (Euro) for initial implementation as of January 1, 1999, and during the transition period through January 1, 2002. The Company does not currently believe that the introduction of the Euro will have a material effect on the Company's foreign exchange and hedging activities. The Company has also assessed the potential impact the Euro conversion will have in regard to its internal systems accommodating Euro-denominated transactions. The Company will continue to evaluate the impact of the Euro introduction over time, based on currently available information. The Company does not currently anticipate any adverse impact of the Euro conversion on the Company.

## YEAR 2000 and GPS WEEK NUMBER ROLLOVER ISSUES

Computers and software, as well as other equipment that relies on only two digits to identify or represent a year, may be unable to accurately process or display certain information at or after the Year 2000. This is commonly referred to as the "Year 2000 issue." The Year 2000 issue may materially affect, Trimble's vendors, suppliers, internal systems, products and customers. The Company continues to address the Year 2000 issue to avoid what might otherwise be a material and adverse effect on the Company's consolidated financial position, results of operations, or cash flows.

Another date-related issue, known as the "GPS Week Number Roll-Over" or "WNRO" issue, could also materially affect various Trimble products. The WNRO issue is unrelated to the Year 2000 issue and is unique to GPS technology. All GPS satellites, which are operated by the U.S. government, broadcast time in the form of a "GPS week number" and a time offset into each "GPS week." Week numbers range from 0 to 1023. Week 0 started on January 6, 1980, and week 1023 will end on August 21, 1999, at which time the week number broadcast by all U.S. GPS satellites will roll over, back to 0. Among other potential effects, this rollover may cause GPS receivers and software that process data obtained by GPS receivers to erroneously interpret high-week-number, pre-WNRO data as post-dating later low-week-number, post-WNRO data. This may cause satellite positions to be miscalculated and produce gross position fix errors. Receivers that process and display calendar dates based on "weeks since 1980" may generate date calculation errors. The Company continues to address the WNRO issue to avoid what might otherwise be a material and adverse effect on the Company's future consolidated financial position, results of operations, or cash flows.

The Company continues to assess the potential impact of both the Year 2000 and WNRO issues on its vendors, suppliers, internal systems, products, and customers-and has begun, and in many cases completed, corrective efforts in these areas.

### Year 2000 Remediation Plan

The Company's Board of Directors has adopted a comprehensive Year 2000 Remediation Plan, the goal of which is to minimize business disruptions and risk exposure that might otherwise arise as a consequence of moving into the twenty-first century. The plan focuses on achieving Year 2000 readiness across the Company's entire supply chain, and is designed to deal with the most critical systems first. Additionally, the Company's Year 2000 remediation plan calls for the development of contingency plans to address potential problem areas with internal systems, and with suppliers and other third parties. To these ends, a Y2K Program Management Office has been established to manage and coordinate implementation of the plan on a companywide basis. It is expected that assessment, remediation, and contingency planning activities will be ongoing throughout 1999, with the objective of appropriately resolving all material Year 2000 issues before the 21st century rollover.

### Information Technology and Other Systems

The Company continues to assess the potential impact of the Year 2000 issue on its internal systems, including information technology (IT) and non-IT systems, and has begun corrective efforts in this area, as follows:

- o The Company has a plan to upgrade its existing MRP/ERP information systems to be Year 2000 compliant.

o Assessment and remediation efforts in connection with the Company's other IT and non-IT systems will be undertaken as part of the Company's general Y2K Remediation Plan.

\* The Company currently plans to complete renovation, testing and implementation of critical systems, or successful execution of contingency plans, during the third quarter of 1999. There can be no assurance, however, that there will not be a delay in, or increased costs associated with, such renovation, testing, implementation or execution, and the Company's inability to successfully and timely complete these tasks could have a material adverse effect on future results of operations or financial condition.

#### Products

\* To address and minimize the anticipated impact of both the Year 2000 issue and the WNRO issue on the Company's products, the Company continues to assess the anticipated impact these issues may have on the performance of its products, and to resolve various related performance problems of its current products. In addition, the Company has adopted a formal Year 2000 and GPS Week Number Rollover Policy to:

- o Publish Year 2000- and WNRO-related product performance information on the Company's public web site,
- o Respond to individual customer inquiries regarding the anticipated performance of particular Company products,
- o Furnish upgrades to customers whose Trimble products are upgradable, and
- o Provide information regarding available product alternatives to customers with noncompliant products.

Assessment of products, resolution of certain products' Year 2000 and WNRO performance problems, and implementation of the Company's Year 2000 and GPS Week Number Rollover Policy, are ongoing, and as to many Company products is complete.

\* The Company does not anticipate that the Year 2000 and WNRO issues will have a material adverse effect on sales of its products. The Company has incurred and will continue to incur, through 1999 and thereafter, increased expenses associated with Year 2000 and WNRO-related product assessment and resolution of certain products' Year 2000 and WNRO performance problems, implementation of the Company's Year 2000 and GPS Week Number Rollover Policy, and fulfillment of Year 2000 and WNRO-related customer support and warranty obligations, in amounts that management believes has not had and will not have a material adverse effect on the Company's historical or future results of operations or financial condition.

#### Vendors and Suppliers

\* For its successful operation, the Company materially relies on goods and services purchased from certain vendors. If these vendors fail to adequately address the Year 2000 issue such that their delivery of goods and services to the Company is materially impaired, it could have a material adverse impact on the Company's operations and financial results. The Company is preparing to survey its principal vendors to assess the effect the Year 2000 issue will have on their ability to supply their goods and services without material interruption, and at this time the Company cannot determine or predict the outcome of this effort. Contingency plans will be developed and executed with respect to vendors who will not be Year 2000 ready in a timely manner where such lack of readiness is expected to have a material adverse impact on the Company's

operations. However, because the Company cannot be certain that its vendors will be able to supply goods and services without material interruption, and because the Company cannot be certain that execution of its contingency plans will be capable of implementation or will result in a continuous and adequate supply of such goods and services, the Company can give no assurance that these matters will not have a material adverse effect on the Company's future consolidated financial position, results of operations, or cash flows.

#### Customers

\* The Company has material relationships with certain customers. If those customers fail to achieve an adequate state of Year 2000 readiness in their own operations, or if their Year 2000 readiness efforts consume significant resources, their ability to purchase the Company's products may be impaired. This could adversely affect demand for the Company's products and, therefore, the Company's future revenues. The Company plans to assess the effect the Year 2000 issue will have on its principal customers, and at this time cannot determine the impact it will have.

#### Related Costs to the Company

\* The Company currently expects that the total cost of Year 2000 remediation efforts will not exceed approximately \$1 million. The Company has been and will be expensing these costs as incurred. The total cost estimate does not include potential costs related to any customer or other claims or the cost of internal software and hardware replaced in the normal course of business. The total cost estimate is based on the current assessment of the projects, and is subject to change as the projects progress.

#### Overall Impact on the Company

\* At the present time, and subject to the cost estimates above, management does not believe that the Year 2000 issue and WNRO matters discussed above will have a material adverse impact on the Company's financial condition or overall trends in results of operation. However, it is uncertain to what extent the Company may be affected by such matters; therefore, there can be no assurance that these matters will not have a material adverse effect on the Company's future consolidated financial position, results of operations, or cash flows.

#### CERTAIN OTHER RISK FACTORS

The Company's revenue has tended to fluctuate on a quarterly basis due to the timing of shipments of products under contracts and the sale of licenses. A significant portion of quarterly revenues occurs from orders received and immediately shipped to customers in the last few weeks and days of a quarter. If orders are not received, or if shipments were to be delayed a few days at the end of a quarter, the operating results and reported earnings per share for that quarter could be significantly impacted. Future revenues are difficult to predict, and projections are based primarily on historical models, which are not necessarily accurate representations of the future.

\* The Company has a relatively fixed cost structure in the short term, and it is determined by the business plans and strategies the Company intends to implement in the two segments it addresses. This effective leveraging means that increases or decreases in revenues have more than a proportional impact on net income or losses. The Company estimates that a change in product revenue of \$1 million would change earnings per share by 2 to 3 cents.

\* The Mobile and Timing Technologies Business Unit relies on high volumes and relatively low margin sales. Mobile and Timing Technologies customers are extremely price-sensitive. As costs decrease through technological advances, these advances are typically passed on to the customer. To compete, Mobile and Timing Technologies requires high-volume production and manufacturing techniques. Customers expect high quality standards with very low defect rates. Compared to competitors, which have far greater resources in such high-volume



manufacturing and associated support activities, the Company is relatively inexperienced.

The Company's stock price is subject to significant volatility. If revenues and/or earnings fail to meet the expectations of the investment community, there could be an immediate and significant impact on the trading price of the Company's stock.

The value of the Company's products relies substantially on its technical innovation in fields in which there are many current patent filings. The Company recognizes that as new patents are issued or are brought to the Company's attention by the holders of such patents, it may be necessary for the Company to withdraw products from the market, take a license from such patent holders, or redesign its products. The Company does not believe that any of its products infringe any valid claim of any patents or other proprietary rights of third parties, but cannot be certain that they do not do so. In addition, the legal costs and engineering time required to safeguard intellectual property or to defend against litigation could become a significant expense of operations. Such events could have a material adverse effect on the Company's revenues or profitability. (See Note 15 to the Consolidated Financial Statements).

The Company is continuously evaluating alliances and external investments in technologies related to its business, and has already entered into alliances and made relatively small investments in a number of GPS related technology companies. Acquisitions of companies, divisions of companies, or products and alliances entail numerous risks, including (i) the potential inability to successfully integrate acquired operations and products or to realize anticipated synergies, economies of scale, or other value; (ii) diversion of management's attention; and (iii) loss of key employees of acquired operations. Any such problems could have a material adverse effect on the Company's business, financial condition, and results of operations. No assurances can be given that the Company will not incur problems from current or future alliances, acquisitions, or investments. Furthermore, there can be no assurance that the Company will realize value from any such alliances, acquisitions, or investments.

Certain risks are inherent in making the types of changes in senior management that occurred during the third fiscal quarter of 1998. While the Company intends to name permanent replacements for such positions as soon as practicable, there can be no assurance that such changes in senior management and related uncertainties will not adversely affect the Company's consolidated operating results and financial condition.

The ability of the Company to maintain its competitive technological position will depend, in a large part, on its ability to attract, motivate and retain highly qualified development and managerial personnel. Competition for qualified employees in the Company's industry is intense, and there can be no assurance that the Company will be able to attract, motivate and retain enough qualified employees necessary for the future continued development of the Company's business and products.

The Company has certain products that are subject to governmental and similar certifications before they can be sold. For example, FAA certification is required for all aviation products. Also, the Company's products that use integrated radio communication technology require an end-user to obtain licensing from The Federal Communications Commission (FCC) for frequency-band usage. During the fourth quarter of 1998, the FCC temporarily suspended the issuance of licenses for certain of the Company's Real-time Kinematic products because of interference with certain other users of similar radio frequencies. An inability or delay in obtaining such certifications or FCC's delays could have an adverse effect on the Company's operating results. The Company's GPS technology is dependent on the use of radio spectrums. The assignment of the spectrums is controlled by a worldwide organization, the International

Telecommunications Union (ITU). Any reallocation of the radio spectrum could have an adverse effect on the Company's operating results.

Under the terms of the Company's subordinated promissory notes, the Company is required to meet a minimum consolidated net worth requirement. The Company is in the process of obtaining a reduction of this minimum requirement. If the Company is not successful in obtaining a reduction in the minimum consolidated net worth requirement and net worth falls below the minimum required level, the Company would be in default of its loan covenants. Such events could have a material adverse effect on the Company's operations and liquidity.

Information with respect to GPS Navstar satellite system is included in Part I of this report, under the caption "Background," paragraph 6.

#### NEW ACCOUNTING STANDARDS

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, (SFAS 133) "Accounting for Derivative Instruments and Hedging Activities." The Standard will require the Company to record all derivatives held on the balance sheet at fair value. Derivatives that are not hedges must be adjusted to fair value through income. If the derivative is a hedge, depending on the nature of the hedge, changes in the fair value of derivatives will either be offset against the change in fair value of the hedged assets, liabilities, or firm commitments through earnings, or recognized in other comprehensive income until the value related to the ineffective portion of a hedge, if any, will be immediately recognized in earnings. The Company expects to adopt SFAS 133 as of the beginning of its fiscal year 2000. The effect of adopting the Standard is currently being evaluated, but is not expected to have a material adverse effect on the Company's financial position or results of operations.

#### Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Following is a discussion of the Company's exposure to market risk related to changes in interest rates and foreign currency exchange rates. The Company uses certain derivative financial instruments to manage these risks. The Company does not use derivative financial instruments for speculative or trading purposes. All financial instruments are used in accordance with board-approved policies.

##### Market Interest Rate Risk

Short-term Investments Owned by the Company. As of January 1, 1999, the Company had short-term investments of \$16.3 million. These short-term investments consist of highly liquid investments with original maturities at the date of purchase between three and twelve months. These investments are subject to interest rate risk and will decrease in value if market interest rates increase. A hypothetical 10 percent increase in market interest rates from levels at January 1, 1999, would cause the fair value of these short-term investments to decline by an immaterial amount. Because the Company has the ability to hold these investments until maturity the Company would not expect the value of these investments to be affected to any significant degree by the effect of a sudden change in market interest rates. Declines in interest rates over time will, however, reduce the Company's interest income.

Outstanding Debt of the Company. As of January 1, 1999, the Company had outstanding long-term debt of approximately \$30.0 million of subordinated promissory notes at a fixed interest rate of 10 percent. The interest rate of

this instrument is fixed. However, a hypothetical 10 percent decrease in the interest rates would not have a material impact on the Company. Increases in interest rates could, however, increase interest expense associated with future borrowings of the Company, if any. The Company does not currently hedge against interest rate increases.

#### Foreign Currency Exchange Rate Risk

The Company hedges risks associated with foreign currency transactions in order to minimize the impact of changes in foreign currency exchange rates on earnings. The Company utilizes forward contracts to hedge trade and intercompany receivables and payables. These contracts reduce the exposure to fluctuations in exchange rate movements, as the gains and losses associated with foreign currency balances are generally offset with the gains and losses on the hedge contracts. All hedge instruments are marked to market through earnings every period.

The Company does not anticipate any material adverse effect on its consolidated financial position utilizing the current hedging strategy.

All contracts have a maturity of less than one year, and the Company does not defer any gains and losses, as they are all accounted for through earnings every period.

The following table provides information about the Company's foreign exchange forward contracts outstanding:

Currency	Buy/ Sell	Foreign Currency Amount (in thousands)	Contract Value USD (in thousands)	Fair Value in USD (in thousands)
YEN	Buy	30,000	\$ 251	\$ 265
YEN	Sell	415,900	\$ 3,394	\$ 3,707
NZD	Buy	3,200	\$ 1,705	\$ 1,686
ECU	Sell	1,565	\$ 1,838	\$ 1,833
STERLING	Buy	650	\$ 1,096	\$ 1,078
DEM	Sell	750	\$ 444	\$ 450

The hypothetical changes and assumptions made above will be different from what actually occurs in the future. Furthermore, the computations do not anticipate actions that may be taken by management, should the hypothetical market changes actually occur over time. As a result, actual earnings effects in the future will differ from those quantified above.

## Item 8. Financial Statements and Supplementary Data

## CONSOLIDATED BALANCE SHEETS

	January 1, 1999	January 2, 1998
-----		
(In thousands)		
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 40,865	\$ 19,951
Short-term investments	16,269	53,171
Accounts receivable, less allowance for doubtful accounts of \$2,220 and \$2,464	33,431	49,101
Inventories	37,166	42,385
Other current assets	4,173	4,147
	-----	-----
Total current assets of continuing operations	131,904	168,755
Property and equipment, at cost less accumulated depreciation	15,104	19,676
Intangible assets less accumulated amortization	1,320	1,525
Deferred income taxes	405	356
Other assets	7,546	7,426
	-----	-----
Total assets of continuing operations	156,279	197,738
Net assets of discontinued operations	-	9,925
	=====	=====
Total assets	\$ 156,279	\$ 207,663
	=====	=====
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 1,388	\$ 44
Accounts payable	13,000	18,724
Accrued compensation and benefits	4,696	5,830
Customer advances	808	830
Accrued liabilities	15,474	5,938
Accrued liabilities related to disposal of General Aviation	6,743	-
Accrued warranty expense	5,681	3,453
Income taxes payable	2,158	2,664
	-----	-----
Total current liabilities	49,948	37,483
Noncurrent portion of long-term debt and other liabilities	31,640	30,697
	-----	-----
Total liabilities	81,588	68,180
	-----	-----
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, no par value; 3,000 shares authorized; none outstanding	-	-
Common stock, no par value; 40,000 shares authorized; 22,247 and 22,813 outstanding, respectively	121,501	132,655
Common stock warrants	700	700
Retained earnings (accumulated deficit)	(46,718)	6,676
Unrealized gain on short-term investments	19	8
Foreign currency translation adjustment	(811)	(556)
	-----	-----
Total shareholders' equity	74,691	139,483
	-----	-----
Total liabilities and shareholders' equity	\$ 156,279	\$ 207,663
	=====	=====

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF OPERATIONS

Years ended	January 1, 1999	January 2, 1998	December 31, 1996
(In thousands, except per share data)			
Revenue	\$ 260,279	\$ 258,894	\$ 221,924
Operating expenses:			
Cost of sales	134,723	118,903	104,881
Research and development	44,826	37,097	32,716
Sales and marketing	61,227	56,457	60,358
General and administrative	32,403	26,592	28,452
Restructuring charges	10,280	-	2,134
Total operating expenses	283,459	239,049	228,541
Operating income (loss) from continuing operations	(23,180)	19,845	(6,617)
Nonoperating income (expense):			
Interest and investment income	3,588	4,462	4,635
Interest and other expense	(5,863)	(3,524)	(3,925)
Foreign exchange gain (loss)	234	234	(4)
Total nonoperating income (expense)	(2,041)	1,172	706
Income (loss) before income taxes from continuing operations	(25,221)	21,017	(5,911)
Income tax provision (benefit)	1,400	2,496	(300)
Net income (loss) from continuing operations	\$ (26,621)	\$ 18,521	\$ (5,611)
Discontinued Operations:			
Loss from discontinued operations (net of income tax benefit of \$176 in 1997 and zero in 1996)	\$ (6,911)	\$ (9,242)	\$ (5,691)
Estimated loss on disposal of discontinued operations (net of tax)	\$ (19,862)	\$ -	\$ -
Loss on discontinued operations	\$ (26,773)	\$ (9,242)	\$ (5,691)
Net income (loss)	\$ (53,394)	\$ 9,279	\$ (11,302)
Basic net income (loss) per share from continuing operations	\$ (1.19)	\$ 0.83	\$ (0.25)
Basic net income (loss) per share from discontinued operations	\$ (1.19)	\$ (0.41)	\$ (0.26)
Basic net income (loss) per share	\$ (2.38)	\$ 0.42	\$ (0.51)
Shares used in calculating basic net income (loss) per share	22,470	22,293	22,005
Diluted net income (loss) per share from continuing operations	\$ (1.19)	\$ 0.80	\$ (0.25)
Diluted net income (loss) per share from discontinued operations	\$ (1.19)	\$ (0.40)	\$ (0.26)
Diluted net income (loss) per share	\$ (2.38)	\$ 0.40	\$ (0.51)
Shares used in calculating diluted net income (loss) per share	22,470	22,947	22,005

See accompanying notes to consolidated financial statements

CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY

	Common stock and warrants		Retained earnings (deficit)	Cumulative other comprehensive income/(loss)	Total shareholders' equity
	Shares	Amount			
(In thousands)					
Balance at December 31, 1995	21,642	\$ 121,149	\$ 8,699	\$ 89	\$ 129,937
Components of comprehensive income (loss):					
Net loss			(11,302)		(11,302)
Unrealized gain (loss) on short-term investments				(82)	(82)
Currency translation adjustments				406	406
Total comprehensive income (loss)					(10,978)
Issuances of stock under employee plans	530	5,774	-	-	5,774
Issuance of stock in connection with acquisition	141	2,857	-	-	2,857
Repurchases of common stock	(250)	(3,545)	-	-	(3,545)
Balance at December 31, 1996	22,063	126,235	(2,603)	413	124,045
Components of comprehensive income (loss):					
Net income			9,279		9,279
Unrealized gain (loss) on short-term investments				(12)	(12)
Currency translation adjustments				(949)	(949)
Total comprehensive income					8,318
Issuances of stock under employee plans	890	8,954	-	-	8,954
Repurchases of common stock	(140)	(1,834)	-	-	(1,834)
Balance at January 2, 1998	22,813	133,355	6,676	(548)	139,483
Components of comprehensive income (loss):					
Net loss			(53,394)		(53,394)
Unrealized gain (loss) on short-term investments				11	11
Currency translation adjustments				(255)	(255)
Total comprehensive income (loss)					(53,638)
Issuances of stock under employee plans	514	4,977	-	-	4,977
Repurchases of common stock	(1,080)	(16,131)	-	-	(16,131)
Balance at January 1, 1999	22,247	\$ 122,201	\$ (46,718)	\$ (792)	\$ 74,691

See accompanying notes to consolidated financial statements

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years ended	January 1, 1999	January 2, 1998	December 31, 1996
(In thousands)			
Cash flow from operating activities of continuing operations:			
Net income (loss) from continuing operations	\$ (26,621)	\$ 18,521	\$ (5,730)
Adjustments to reconcile net income (loss) from continuing operations to cash flows from operating activities of continuing operations:			
Depreciation and amortization expense	12,510	12,208	10,140
Write-down of fixed assets due to restructure	5,343	-	-
Other	(835)	(980)	1,337
Decrease (increase) in assets:			
Accounts receivable, net	15,475	(15,042)	4,342
Inventories	5,219	(6,988)	(4,885)
Other current and noncurrent assets	1,622	(1,535)	(2,567)
Deferred income taxes	(49)	27	1,191
Increase (decrease) in liabilities:			
Accounts payable	(5,724)	4,961	(2,102)
Accrued compensation and benefits	(1,134)	(722)	807
Customer advances	(22)	(2,170)	1,920
Accrued liabilities	10,899	(967)	1,608
Income taxes payable	(506)	1,795	(2,133)
Net cash provided by operating activities of continuing operations	16,177	9,108	3,928
Net cash (used) by operating activities of discontinued operations	(9,209)	(11,159)	(7,796)
Net cash provided (used) by operating activities	6,968	(2,051)	(3,868)
Cash flow from investing activities:			
Equity investments	(1,548)	(1,889)	-
Acquisition of property and equipment	(11,539)	(10,393)	(9,777)
Costs of capitalized patents	(992)	(910)	(762)
Purchase of short-term investments	(53,854)	(63,854)	(75,663)
Maturities/Sales of short-term investments	90,756	70,538	83,247
Net cash provided (used) by investing activities of continuing operations	22,823	(6,508)	(2,955)
Net cash provided (used) by investing activities of discontinued operations	(339)	(598)	(582)
Net cash provided (used) by investing activities	22,484	(7,106)	(3,537)
Cash flow from financing activities:			
Issuance of common stock	4,977	8,954	5,774
Repurchase of common stock	(16,131)	(1,834)	(3,545)
(Payment)/collection of notes receivable	(219)	(504)	66
(Payments)/proceeds on long-term debt and revolving credit facilities	2,835	(179)	(1,930)
Net cash provided (used) by financing activities of continuing operations	(8,538)	6,437	365
Net cash provided by financing activities of discontinued operations	-	-	-
Net cash provided (used) by financing activities	(8,538)	6,437	365
Increase (decrease) in cash and cash equivalents	20,914	(2,720)	(7,040)
Cash and cash equivalents, beginning of period	19,951	22,671	29,711
Cash and cash equivalents, end of period	\$ 40,865	\$ 19,951	\$ 22,671

See accompanying notes to consolidated financial statements

Note 1 - Summary of significant accounting policies:

Use of estimates. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Due to the inherent nature of those estimates, actual results could differ from expectations.

Basis of presentation. During fiscal year 1997, the Company changed its fiscal year from a calendar year ending on December 31 to an annual period that varies from 52 to 53, weeks and that always ends on the Friday nearest to December 31, which for fiscal 1998 was January 1, 1999.

The Company's fiscal year will normally consist of four equal quarters of 13 weeks each, or 52 weeks; however, due to the fact that there are not exactly 52 weeks in a calendar year and that there is slightly more than one additional day per year (not including the effects of leap year) in each calendar year as compared to a 52-week fiscal year, the Company will have a fiscal year composed of 53 weeks in certain fiscal years, as determined by when Friday falls closest to December 31 in consecutive calendar years.

In those resulting fiscal years that have 53 weeks, the Company will record an extra week of revenues, costs and related financial activity. Therefore, the financial results of those fiscal years, and the associated quarter, having the extra week, will not be exactly comparable to the prior and subsequent 52-week fiscal years, and the associated quarters having only 13 weeks. Thus, due to the inherent nature of adopting a 52-53 week fiscal year, the Company, analysts, shareholders, investors and others will have to make appropriate adjustments to any analysis performed when comparing the Company's activities and results in fiscal years that contain 53 weeks, to those that contain the standard 52 weeks.

Principles of consolidation. The consolidated financial statements include the accounts of Trimble Navigation Limited (the Company) and its wholly-owned subsidiaries after elimination of all material intercompany balances and transactions.

Foreign currency translation. Assets and liabilities of the Company's foreign subsidiaries are translated into U.S. dollars at year-end exchange rates, and revenues and expenses are translated at average rates prevailing during the year. Local currencies are considered to be the functional currencies for the Company's non-U.S. subsidiaries. Translation adjustments are deferred in a separate component of shareholders' equity. Foreign currency transaction gains and losses are included in results of operations as incurred.

Forward foreign currency exchange contracts. The Company's policy is to hedge its known exposure to foreign currency transactions to minimize the effect of changes in foreign currency exchange rates on consolidated results of operations. The Company enters into simple forward foreign exchange contracts to either buy or sell currency if the net position exceeds \$400,000. The forward foreign exchange contract obligates the Company to exchange predetermined amounts of specified foreign currencies at specified exchange rates on specified dates, or to make an equivalent U.S. dollar payment equal to the value of such exchange. For contracts that are designated and effective as hedges, discounts or premiums (the difference between the spot exchange rate and the forward exchange rate at inception of the contract) are accreted or amortized to other operating expenses over the contract lives, using the straight-line method, while realized and unrealized gains and losses resulting from changes in the spot exchange rate (including those from open, matured, and terminated



contracts) are included in results of operations. The related amounts due to or from counterparties are included in other assets or other liabilities. Contract amounts are marked to market, with changes in market value recorded in earnings as foreign exchange gains or losses. To date, the Company has entered into simple forward foreign currency exchange contracts to offset the effects of changes in exchange rates on foreign-denominated intercompany receivables. At January 1, 1999, the Company had forward foreign currency exchange contracts to sell \$3,394,000 of Japanese Yen, \$1,838,000 of European Currency units, and \$444,000 of German Marks, and to buy \$1,705,000 of New Zealand dollars, \$1,096,000 of British Pound Sterling, and \$251,000 of Japanese Yen, at contracted rates that mature over the next five months.

Cash and cash equivalents. Cash and cash equivalents include all cash and highly liquid investments with original maturities of three months or less. The carrying amount of cash and cash equivalents approximates fair value because of the short maturity of those instruments.

Short-term investments. The Company has classified all its short-term investments as "available for sale." Available-for-sale securities are carried at fair value, with the unrealized holding gains and losses, net of tax effects, reported as a separate component of shareholders' equity. Fair value is based on quoted market prices. The cost of debt securities in this classification is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization, as well as interest, dividends, and realized gains and losses, is included in interest and investment income. The cost of securities sold is based on the specific identification method.

At January 1, 1999, the Company's short-term investments consisted of municipal securities totaling \$16,269,000 at cost, which had unrealized gains of \$19,000 and had original maturities of less than one year from the date of purchase. At January 2, 1998, the Company's short-term investments in U.S. Treasury securities had a cost of \$53,171,000 and had unrealized gains of \$8,000.

Concentration of credit risk. In entering into forward foreign exchange contracts, the Company has assumed the risk that might arise from the possible inability of counterparties to meet the terms of their contracts. The counterparties to these contracts are major multinational commercial banks, and the Company does not expect any losses as a result of counterparty defaults. The Company is also exposed to credit risk in its accounts receivable and performs ongoing credit evaluations of its customers and generally does not require collateral. The expenses recorded for doubtful accounts receivable were \$195,000 in 1998, \$315,000 in 1997, and \$1,159,000 in 1996.

Inventories. Inventories are stated at the lower of standard cost or market. Standard costs approximate average actual costs.

Revenue recognition. The Company recognizes revenue from product sales at the time of shipment, except as to revenue deferred for extended warranty obligations. Substantially all technology licenses and research revenue have consisted of initial license fees and royalties, which were recognized when earned, when the Company had no remaining obligations.

Product warranty. The Company provides for estimated warranty costs at the time of sale. The warranty period is generally for one year from date of shipment, except for air transport products, for which the period is generally a basic three year warranty period with an additional two year warranty sold with some units. In addition, select military programs may require extended warranty periods.

Advertising costs. The Company expenses the production costs of advertising as incurred. Advertising expenses were \$6,490,000, \$6,328,000, and \$7,587,000 in 1998, 1997 and 1996, respectively.

Stock compensation. In accordance with the provisions of Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock-Based Compensation," the Company applies Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" (APB 25) and related Interpretations in accounting for its stock option plans and stock purchase plan. Accordingly, it does not recognize compensation cost for stock options granted at or above market. Note 11 to the Consolidated Financial Statements describes the plans operated by the Company, and contains a summary of the pro forma effects to reported net income (loss) and earnings (loss) per share for 1998, 1997, and 1996 as if the Company had elected to recognize compensation cost based on the fair value of the options granted at grant date, as prescribed by SFAS No. 123.

Depreciation and amortization. Depreciation of property and equipment owned or under capitalized leases is computed using the straight-line method over the shorter of the estimated useful lives or the lease terms. Useful lives range from three years for machinery and equipment to five years for furniture and fixtures. Amortization of intangibles is computed using the straight-line method over the estimated lives, generally periods of four years or less.

Interest. All interest costs incurred have been charged to interest expense.

Net income (loss) per share. In 1997, the Financial Accounting and Standards Board issued Statement No. 128, "Earnings Per Share." Statement 128 replaced the calculation of primary and fully diluted earnings (loss) per share with basic and diluted earnings (loss) per share. Unlike primary earnings (loss) per share, basic earnings (loss) per share excludes any dilutive effects of options, warrants and convertible securities. Diluted earnings (loss) per share is very similar to the previously reported fully diluted earnings (loss) per share. All earnings (loss) per share amounts for all periods have been presented and, where appropriate, restated to conform to the Statement 128 requirements.

Note 2 - The Company, industry segment, geographic, and customer information:

Effective January 1, 1999, the Company adopted Statement of Financial Accounting Standards (SFAS) No. 131, "Disclosures about Segments of an Enterprise and Related Information." The Statement requires the Company to report segment financial information consistent with the presentation made to the Company's management for decision-making purposes. Prior year financial information disclosures have been restated to be consistent with the presentation required by SFAS 131 for the fiscal year ended January 1, 1999.

The Company operates in a single industry segment as a leader in designing and developing innovative products enabled by GPS technology. The Company provides end-user and Original Equipment Manufacture solutions for diverse applications including surveying, mapping, marine survey, mining, construction and agriculture, mobile positioning, commercial avionics, military systems, automotive, timing, and geographic information systems. During 1998, the Company announced that it was discontinuing its participation in General Aviation. The Company sells its products through a direct sales force located in fifteen countries, as well as through a worldwide network of dealers, distributors and authorized representatives. Research and development activities are conducted at the Company's facilities in Sunnyvale, California and Christchurch, New Zealand. Manufacturing is performed in Sunnyvale, California and Austin, Texas.

The Company manages its industry segment within two Business Units: the Precision Positioning Group and the Mobile and Timing Technologies (MTT) Group.

Each Business Unit is managed separately because each Business Unit is subject to different distribution, marketing, production, and technology strategies. The Precision Positioning Group derives its revenues from GPS-based land surveying, mining, construction and agriculture, geographic information systems mapping, and marine survey markets. The Mobile and Timing Technologies market derives its revenues from GPS-based automotive, timing, mobile positioning technologies, commercial aviation and military systems markets, and from development of software licenses and other rights for the use of GPS to third parties. The Company evaluates these Business Units' performance and allocates resources based on profit and loss from operations before income taxes.

The accounting policies applied by each of the markets are the same as those used by the Company in general.

The table on the following page presents revenues, operating income (loss), and identifiable assets by the Company's Business Units. There is no recognition of inter-Business Unit sales or transfers. Operating income (loss) is net sales less operating expenses, excluding general corporate expenses, interest income (expense), and income taxes. The identifiable assets the Chief Operating Decision Maker (CODM) views by industry market are accounts receivable and inventory. The Company does not report depreciation and amortization or capital expenditures by industry markets to the CODM.

(in thousands)

	Year ended January 1, 1999		
	PPG	MTT	Total
External net revenue	\$ 165,951	\$ 94,328	\$ 260,279
Operating income/(loss) before corporate allocations	23,905	1,358	25,263
Corporate allocations(1)	(15,093)	(7,239)	(22,332)
Operating income/(loss) from continuing operations	\$ 8,812	\$ (5,881)	\$ 2,931
Assets:			
Accounts receivable (2)	\$ 32,197	\$ 14,837	\$ 47,034
Inventory	10,042	16,251	26,293

  

	Year ended January 2, 1998		
	PPG	MTT	Total
External net revenue	\$ 142,449	\$ 116,445	\$ 258,894
Operating income/(loss) before corporate allocations	11,644	19,248	30,892
Corporate allocations (1)	(10,872)	(6,368)	(17,240)
Operating income/(loss) from continuing operations	\$ 772	\$ 12,880	\$ 13,652
Assets:			
Accounts receivable (2)	\$ 31,301	\$ 28,215	\$ 59,516
Inventory	13,782	17,499	31,281

  

	Year ended December 31, 1996		
	PPG	MTT	Total
External net revenue	\$ 140,934	\$ 80,990	\$ 221,924
Operating income/(loss) before corporate allocations	24,483	1,741	26,224
Corporate allocations (1)	(15,366)	(10,560)	(25,926)
Operating income/(loss) from continuing operations	\$ 9,117	\$ (8,819)	\$ 298
Assets:			
Accounts receivable (2)	\$ 21,147	\$ 20,527	\$ 41,674
Inventory	11,318	16,730	28,048

(1) For the years ended January 1, 1999 and January 2, 1998, the Company determined the amount of the corporate allocations charged to its Business Units based on a percentage of the Business Units' monthly inventory balance and gross profit. Allocation percentages were determined at the beginning of the respective fiscal year.

(2) The accounts receivable number excludes cash in advance which is not allocated between business unit segments.

Following are reconciliations corresponding to totals in the accompanying consolidated financial statements (in thousands):

Years ended	January 1, 1999	January 2, 1998	December 31, 1996
Revenues:			
Total for reportable markets	\$ 260,279	\$ 258,894	\$ 221,924
Operating income/(loss) from continuing operations:			
Total for reportable markets	\$ 2,931	\$ 13,652	\$ 298
Unallocated corporate expenses	(26,111) (1)	6,193 (2)	(6,915) (3)
Operating income/(loss)	\$ (23,180)	\$ 19,845	\$ (6,617)
Assets:			
Accounts Receivable total for reportable markets	\$ 47,034	\$ 59,516	\$ 41,674
Unallocated (4)	(13,603)	(10,415)	(7,300)
Total	\$ 33,431	\$ 49,101	\$ 34,374
Inventory total for reportable markets	\$ 26,293	\$ 31,281	\$ 28,048
Common inventory (5)	10,873	11,104	10,810
Total net inventory	\$ 37,166	\$ 42,385	\$ 38,858

(1) Includes approximately \$10.3 million of restructuring charges.

(2) For the years ended January 1, 1999 and January 2, 1998, the Company determined the amount of the corporate allocations charged to its Business Units based on a percentage of the Business Units' monthly inventory balance and gross profit which percentage was determined at the beginning of the respective fiscal year. However, due to the lower than expected actual level of corporate expenses and higher than expected inventory balances in the year ended January 2, 1998, the Company overallocated corporate expenses to the Business Units. This results in a negative unallocated corporate expense amount as shown in the reconciliation of operating profit (loss) from continuing operations for the reportable segments to the amounts reported in the Company's statement of operations.

(3) Includes approximately \$2.1 million of restructuring charges.

(4) Includes cash in advance and reserves that are not allocated by segment.

(5) This is inventory that is common between the business unit segments. Parts can be used by either segment.

The geographic distribution of the Company's revenues and identifiable assets are summarized in the table below in thousands.

		Geographic Area					Total
		U.S.	Europe/ Middle East	Asia	Other Foreign Countries	Eliminations	
1998							
	Sales to unaffiliated customers (1)	\$ 139,807	\$ 63,987	\$ 34,172	\$ 22,314	\$ -	\$ 260,279
	Intergeographic transfers	79,416	-	1,153	-	(80,569)	-
	Total revenue	\$ 219,223	\$ 63,987	\$ 35,325	\$ 22,314	\$ (80,569)	\$ 260,279
	Identifiable assets	\$ 134,170	\$ 13,384	\$ 9,460	\$ 28	\$ (763)	\$ 156,279
1997							
	Sales to unaffiliated customers (1)	\$ 140,953	\$ 56,844	\$ 39,093	\$ 22,003	\$ -	\$ 258,894
	Intergeographic transfers	29,481	2,482	1,198	-	(33,161)	-
	Total revenue	\$ 170,434	\$ 59,326	\$ 40,291	\$ 22,003	\$ (33,161)	\$ 258,894
	Identifiable assets	\$ 185,809	\$ 11,897	\$ 10,584	\$ 39	\$ (666)	\$ 207,663
1996							
	Sales to unaffiliated customers (1)	\$ 116,594	\$ 47,084	\$ 42,251	\$ 15,996	\$ -	\$ 221,924
	Intergeographic transfers	70,366	-	1,474	-	(71,840)	-
	Total revenue	\$ 186,960	\$ 47,084	\$ 43,725	\$ 15,996	\$ (71,840)	\$ 221,924
	Identifiable assets	\$ 166,400	\$ 14,355	\$ 10,037	\$ 5	\$ (956)	\$ 189,841

(1) Sales attributed to countries based on the location of the customer.

Transfers between U.S. and foreign geographic areas are made at prices based on total costs and contributions of the supplying geographic area. The Company's subsidiaries in the Pacific Rim and Asia have derived revenue from commissions from domestic operations in each of the periods presented. These commission revenues and expenses are excluded from total revenue and operating income (loss) in the preceding table. Sales to unaffiliated customers in Japan are made by the Company's Japanese subsidiary.

No single customer accounted for 10% or more of total revenues in fiscal 1998, 1997 or 1996.

Note 3 - Discontinued Operations:

On October 2, 1998, the Company adopted a plan to discontinue its General Aviation division. The Company anticipates that the division will be disposed of by June 30, 1999. Accordingly, the General Aviation division is being reported as a discontinued operation for all periods presented in these financial statements. Net assets of the discontinued operation at October 2, 1998, were written off and consisted primarily of inventory, property, plant, equipment, and intangible assets.

The estimated loss on the disposal of the discontinued operation is \$19.9 million. The estimate includes a write-off of net assets of \$12.7 million and a provision of \$7.2 million for costs of disposal, including severance costs, facility and certain other contractual costs, and anticipated operating losses through the estimated date of disposal.

The net assets, which have been written off in fiscal 1998, and the net assets of discontinued operations for fiscal 1997 are summarized as follows:

	January 1, 1999	January 2, 1998
-----		
(in thousands)		
Inventory	\$ 7,283	\$ 5,388
Other current assets	451	48
Plant and equipment, net	3,241	2,289
Other non-current assets	1,754	2,200
Less write offs	(12,729)	-
	=====	=====
Net assets of discontinued operations	\$ -	\$ 9,925
	=====	=====

The provision of \$7.2 million consisted of \$2.9 million of severance costs, \$1.9 million of facility and certain other contractual costs, and \$2.4 million of anticipated operating losses through the estimated date of disposal of March 31, 1999.

As of January 1, 1999, the Company had incurred expenses of \$390,000. The Company has a remaining provision of \$6.7 million for the costs of disposal, including severance costs, facility and certain other contractual costs, and anticipated operating losses through the estimated date of disposal.

The net revenues of the discontinued operation are not included in net revenues of continuing operations in the accompanying statements of operations. The operating results of the discontinued operation are summarized as follows:

	January 1, 1999	January 2, 1998	December 31, 1996
-----			
(in thousands)			
Net revenues	\$ 13,482	\$ 13,411	\$ 11,736
Income (loss) before tax provision	(6,911)	(9,418)	(5,691)
Income tax provision (benefit)	-	(176)	-
	=====	=====	=====
Net loss	(6,911)	(9,242)	(5,691)
	=====	=====	=====
Basic net loss per share	\$ (0.31)	\$ (0.41)	\$ (0.26)
Diluted net income loss per share	\$ (0.31)	\$ (0.40)	\$ (0.26)

Note 4 - Balance sheet components:

	January 1, 1999	January 2, 1998
-----		
(In thousands)		
Inventories		
Raw materials	\$ 22,480	\$ 28,477
Work-in-process	4,033	6,230
Finished goods	10,653	7,678
	-----	-----
	\$ 37,166	\$ 42,385
	=====	=====
Property and equipment		
Machinery and equipment	\$ 59,520	\$ 51,350
Furniture and fixtures	5,763	4,514
Leasehold improvements	6,700	6,007
	-----	-----
	71,983	61,871
Less accumulated depreciation	(56,879)	(42,195)
	-----	-----
	\$ 15,104	\$ 19,676
	=====	=====

Note 5 - Bank line of credit:

In August 1997, the Company entered into a three-year \$50,000,000 unsecured revolving credit facility with four banks (the "Credit Agreement"). This credit facility replaced the previous two-year \$30,000,000 unsecured line that expired in August 1997. The Credit Agreement enables the Company to borrow up to \$50,000,000, provided that certain financial and other covenants are met. Under a separate agreement the Company has an additional \$5,000,000 line of credit provided only by the lead bank under the Credit Agreement for "Letter of Credit" purposes, and this is also subject to the covenants in the main facility. The Credit Agreement provides for payment of a commitment fee of 0.25% and borrowings to bear interest at 1% over LIBOR if the total funded debt to EBITDA is less than or equal to 1.00 times, 0.3% and borrowings to bear interest at 1.25% over LIBOR if the ratio is greater than 1.00 times and less than or equal to 2.00 times, or 0.4% and borrowings to bear interest at 1.75% over LIBOR if the ratio is greater than 2.00 times. In addition to borrowing at the specified LIBOR rate, the Company has the right to borrow with interest at the higher of (i) one of the bank's annual prime rate and (ii) the federal funds rate plus 0.5%. To date, the Company has not made any borrowings under the lines. In addition, the Company is restricted from paying dividends under the terms of the Credit Agreement.

As of October 27, 1998, the Agent and Lenders of the \$50,000,000 unsecured revolving credit facility granted a limited waiver of the Company's compliance with various loan covenants as of October 2, 1998 until December 15, 1998. The Agent and Lenders granted a second limited waiver (an extension of the first limited waiver) for the Company's compliance with various loan covenants that extended from January 1, 1999 through February 16, 1999. As of February 16, 1999 the Company, the Agent and the Lenders agreed to new covenants that will be tested by a compliance document as of April 2, 1999, and for the life of the loan which expires in August of 2000. The \$50,000,000 revolving credit facility was modified to include the \$5,000,000 line of credit for Letter of Credit purposes to simplify the entire arrangement as less than \$150,000 was being utilized under the separate facility as of January 1, 1999. To date, the Company has not made any borrowings under the \$50,000,000 revolving credit facility.

Note 6 - Restructuring:

In the third and fourth quarters of fiscal 1998, the Company recorded restructuring charges totaling \$10.3 million classified as operating expenses.



These charges are a result of the Company's reorganization to improve business processes and to decrease organizational redundancies, to improve management accountability and to improve the Company's focus on profitable operations. As a result of the reorganization, the Company has downsized its operations, including reducing headcount and facilities space usage and canceling its enterprise wide information system project and certain research and development projects. The impact of these decisions is that significant amounts of the Company's fixed assets, prepaid expenses, and purchased technology have been impaired and certain liabilities incurred. The Company has written down the related assets to their net realizable values and made provisions for the estimated liabilities.

The elements of the charges in 1998 and the amounts remaining at January 1, 1999, on the balance sheet are as follows (in thousands):

	Total charged to expense	Amounts paid/written off in 1998	Remaining in accrued liabilities as of January 1, 1999
Employee termination benefits	\$ 2,864	\$ (1,200)	\$ 1,664
Facility space reductions	1,061	-	1,061
Enterprise wide information system abandonment	6,360	(4,895)	1,465
Subtotal	\$ 10,285	\$ (6,095)	\$ 4,190

The cash expenditures associated with the remaining obligations will occur primarily in fiscal 1999.

Note 7 - Long-term debt and other noncurrent liabilities:

Long-term debt consists of the following:

	January 1, 1999	January 2, 1998
(In thousands)		
Subordinated notes	\$ 29,703	\$ 29,600
Installment loan obligations	2,776	-
Other	549	1,141
	33,028	30,741
Less current portion	1,388	44
Noncurrent portion	\$ 31,640	\$ 30,697

During June 1994, the Company issued \$30.0 million of subordinated promissory notes bearing interest at an annual rate of 10%, with principal due on June 15, 2001. Interest payments are due monthly in arrears. The notes are subordinated to the Company's senior debt, which is defined as all pre-existing indebtedness for borrowed money and certain future indebtedness for borrowed money (including, subject to certain restrictions, secured bank borrowings and borrowed money for the acquisition of property and capital equipment) and trade debt incurred in the ordinary course of business. If the Company prepays any portion of the principal, it is required to pay additional amounts if U.S. Treasury obligations of a similar maturity exceed a specified yield. Under the agreement, the Company is restricted from paying dividends.

The issuance of the notes also included warrants entitling holders to purchase 400,000 shares of common stock at a price of \$10.95 per share at any time through June 15, 2001. The warrants are included in shareholders' equity at their appraised fair value of \$700,000 at the time of issue. The net proceeds of

the notes were \$29,348,000 after issuance costs of \$652,000. The notes are shown under noncurrent liabilities, net of appraised fair value attributed to the warrants. The value of the warrants and the issuance costs are being amortized and included in interest expense, using the interest rate method over the term of the subordinated promissory notes. The effective annual interest rate on the notes is 11.5%. Under the terms of the note, the Company is required to meet a minimum consolidated net worth requirement. The Company is in the process of negotiating a reduction of this minimum requirement. If the company is not successful in negotiating a reduction in the minimum consolidated net worth requirement and the Company incurs future losses; the accumulated losses may cause the company to be in default of its loan covenants. Such events could have a material adverse effect on the Company's profitability.

Other long-term debt represents deferred rent obligations, rental inducements on certain of the Company's leased facilities, an installment loans for a fixed asset purchase. There are three installment loans for capitalized software, which in total, have two annual payments of \$1,388,000. The first installment loan consists of two payments of \$129,480.00 due May 30, 1999 and May 30, 2000. The second installment loan consists of two payments of \$942,800.00 due May 30, 1999 and May 30, 2000. The third installment loan consists of two payments of 315,912.00 due May 01, 1999 and May 01, 2000. The lease agreements provide for scheduled increases in lease payments over the terms of the leases.

Note 8 - Lease obligations and commitments:

The Company's principal facilities in the United States are leased under noncancelable operating leases that expire at various dates from 1999 through 2003. The Company has options to renew certain of these leases for an additional five years. The Company's United Kingdom subsidiary leases a facility under an operating lease that expires in 2015.

Future minimum payments required under noncancelable operating leases are as follows:

	Operating Leases
-----	
(In thousands)	
1999	\$ 4,991
2000	4,131
2001	1,752
2002	1,372
2003	690
Thereafter	905
	=====
Total	\$ 13,841
	=====

Rent expense under operating leases was \$6,287,000 in 1998, \$5,472,400 in 1997, and \$6,004,800 in 1996.

Note 9 - Fair value of financial instruments:

Statement of Financial Accounting Standard No. 107, "Disclosures about Fair Value of Financial Instruments" requires disclosure of the following information about the fair value of certain financial instruments for which it is practicable to estimate that value. None of the financial instruments are held or issued for trading purposes. The carrying amounts and fair values of the Company's financial instruments are as follows:

January 1, 1999

(In thousands)	Carrying Amount	Fair Value
<b>Assets:</b>		
Cash and cash equivalents (Note 1)	\$ 40,865	\$ 40,865
Short-term investments (Note 1)	16,269	16,269
<b>Liabilities:</b>		
Forward foreign exchange contracts (Note 1)	\$ 281	\$ 281
Subordinated notes (Note 7)	29,703	30,167

The fair value of the subordinated notes has been estimated using an estimate of the interest rate the Company would have had to pay on issuance of notes with a similar maturity, and discounting the cash flows at that rate. The fair values do not give an indication of the amount that the Company would have to pay to extinguish any of this debt.

The fair value of forward foreign exchange contracts is estimated based on quoted market prices of comparable contracts, and these contracts are restated to the fair value at the end of every month.

**Note 10 - Income taxes:**

The income tax provision (benefit) consists of the following (in thousands):

Years ended	January, 1 1999	January 2, 1998	December 31, 1996
<b>Federal:</b>			
Current	\$ 233	\$ 1,344	\$ (2,557)
Deferred	-	-	1,208
	-----	-----	-----
	233	1,344	(1,349)
	-----	-----	-----
<b>State:</b>			
Current	20	10	5
Deferred	-	-	-
	-----	-----	-----
	20	10	5
	-----	-----	-----
<b>Foreign:</b>			
Current	1,195	1,116	1,060
Deferred	(48)	26	(16)
	-----	-----	-----
	1,147	1,142	1,044
	-----	-----	-----
Income tax provision (benefit)	\$ 1,400	\$ 2,496	\$ (300)
	=====	=====	=====

The domestic income (loss) from continuing operations before income taxes (including royalty income subject to foreign withholding taxes) was approximately (\$26,220,000), \$18,800,000, and (\$7,615,000) in fiscal years 1998, 1997 and 1996.

The income tax provision (benefit) differs from the amount computed by applying the statutory federal income tax rate to income before taxes. The sources and tax effects of the differences are as follows (in thousands):

Years ended	January, 1 1999	January 2, 1998	December 31, 1996
Expected tax from continuing operations at 35% in all years	\$ (8,827)	\$ 7,356	\$ (2,069)
Tax account valuation adjustments	-	(4,100)	(1,630)
Operating loss not utilized (utilized)	9,178	(1,410)	2,585
Foreign withholding taxes	467	403	170
Foreign tax rate differential	329	(28)	277
Other	253	275	367
Income tax provision (benefit)	\$ 1,400	\$ 2,496	\$ (300)
Effective tax rate	(6%)	12%	5%

The components of deferred taxes consist of the following (in thousands):

	January, 1 1999	January 2, 1998
Deferred tax liabilities:		
Goodwill	\$ -	\$ 866
Other individually immaterial items	178	290
Total deferred tax liabilities	178	1,156
Deferred tax assets:		
Inventory valuation differences	10,423	6,480
Expenses not currently deductible	9,907	3,017
Federal credit carryforwards	7,252	6,316
Depreciation	3,689	1,163
State credit carryforwards	3,138	2,099
Federal net operating loss (NOL) carryforward	3,023	-
Warranty	2,090	1,234
Other individually immaterial items	2,660	825
Total deferred tax assets	42,182	21,134
Valuation allowance	(41,599)	(19,622)
Total deferred tax assets	583	1,512
Total net deferred tax assets	\$ 405	\$ 356

The NOL and credit carryforwards listed above expire in 1999 through 2018.

The valuation allowance decreased by \$300 thousand in 1997. Approximately \$7.2 million of the valuation allowance at January 1, 1999 relates to the tax benefits of stock option deductions which will be credited to equity when realized.

#### Note 11 - Shareholders' equity:

1993 Stock Option Plan. In 1992, the Company's Board of Directors adopted the 1993 Stock Option Plan (1993 Plan) to replace the Company's 1983 Stock Option Plan, which expired in January 1993. The 1993 Plan, as amended to date and approved by shareholders, provides for the granting of incentive and nonstatutory stock options for up to 3,800,000 shares of Common Stock to

employees, consultants and directors of the Company. Incentive stock options may be granted for exercise prices that are not less than 100% of the fair market value of Common Stock on the date of grant. All employee stock options granted have 120-month terms, and vest at a rate of 20% at the first anniversary of grant, and monthly thereafter at an annual rate of 20%, with full vesting occurring at the fifth anniversary of grant. The exercise price of nonstatutory stock options issued under the 1993 Plan must be at least 85% of the fair market value of Common Stock on the date of grant. As of January 1, 1999, options to purchase 2,867,658 shares were outstanding and 374,211 shares were available for future grant under the 1993 Stock Option Plan.

1990 Director Stock Option Plan. In December 1990, the Company adopted a Director Stock Option Plan under which the Company has reserved 380,000 shares of Common Stock for options to be granted to nonemployee directors. At January 1, 1999, options to purchase 158,333 shares were outstanding and 145,833 shares were available for future grants under the Director Stock Option Plan.

1992 Management Discount Stock Option Plan. In 1992 the Company's Board of Directors approved the 1992 Management Discount Stock Option Plan ("Discount Plan"). Under the Discount Plan, 300,000 nonstatutory stock options were reserved for grant to management employees at exercise prices that are significantly discounted from the fair market value of Common Stock on the dates of grant. Options are generally exercisable six months from the date of grant. As of January 1, 1999, there were 129,974 shares available for future grants. For accounting purposes, compensation cost on these grants is measured by the excess over the discounted exercise prices of the fair market value of Common Stock on the dates of option grant. Noncash compensation cost related to options exercised in 1998, 1997, and 1996 amounted to \$0, \$275,000, and \$48,744, respectively. As of January 1, 1999, all outstanding options had been exercised.

1988 Employee Stock Purchase Plan. In 1988, the Company established an employee stock purchase plan under which an aggregate of 2,350,000 shares of Common Stock have been reserved for issuance to date as approved by the shareholders. The plan permits full-time employees to purchase Common Stock through payroll deductions at 85% of the lower of the fair market value of the Common Stock at the beginning or at the end of each six-month offering period. In 1998, 332,154 shares were issued under the plan for aggregate proceeds of \$2,827,000. At January 1, 1999, the number of shares reserved for future purchases was 402,842.

As stated in Note 1, the Company has elected to follow APB 25 and related Interpretations in accounting for its employee stock options and stock purchase plans. The alternative fair value accounting provided for under SFAS 123 requires use of option pricing models that were not developed for use in valuing employee stock options. Under APB 25, because the exercise price of the Company's employee stock options equals the market price of the underlying stock on date of grant, no compensation expense is recognized.

Pro forma information regarding net income and earnings per share is required by SFAS 123 and has been determined as if the Company had accounted for its employee stock options and purchases under the Employee Stock Purchase Plan using the fair value method of that Statement. The fair value for these options was estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions for 1998, 1997, and 1996:

	January 1, 1999	January 2, 1998	December 31, 1996
	-----	-----	-----
Expected dividend yield	\$ -	\$ -	\$ -
Expected stock price volatility	55.65%	58.07%	58.76%
Risk-free interest rate	5.76%	6.36%	6.29%
Expected life of options after vesting	1.20	1.19	0.77

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of its employee stock options.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the options' vesting period, and the estimated fair value of purchases under the Employee Stock Purchase Plan is expensed in the year of purchase. The Company's pro forma information (in thousands except for per share data) is as follows:

	January 1, 1999	January 2, 1998	December 31, 1996
Net income (loss) - as reported	\$ (53,394)	\$ 9,279	\$ (11,302)
Net income (loss) - pro forma	\$ (58,661)	\$ 2,899	\$ (15,806)
Basic income (loss) per share - as reported	\$ (2.38)	\$ 0.42	\$ (0.51)
Basic income (loss) per share - pro forma	\$ (2.61)	\$ 0.13	\$ (0.72)
Diluted income (loss) per share - as reported	\$ (2.38)	\$ 0.40	\$ (0.51)
Diluted income (loss) per share - pro forma	\$ (2.61)	\$ 0.13	\$ (0.72)

Because the fair value method is applicable only to options granted subsequent to December 31, 1994, pro forma effects will not be fully reflected until 1998. Accordingly, these figures are unlikely to be representative of the effects on reported net income for future years.

Exercise prices for options outstanding as of January 1, 1999, ranged from \$8.00 to \$29.625. The weighted average remaining contractual life of those options is 7.59 years. In view of the wide range of exercise prices, the Company considers it appropriate to provide the following additional information in respect of options outstanding:

Range	Number (in thousands)	Total Weighted-average exercise price	Weighted-average remaining contractual life	Number (in thousands)	Currently exercisable Weighted-average exercise price
\$8.0000-\$9.5000	305	\$8.76	6.13	123	\$8.92
\$9.6250-\$9.8750	72	\$9.63	3.75	60	\$9.63
\$9.9375-\$9.9375	488	\$9.94	9.56	1	\$9.94
\$10.0000-\$12.0000	336	\$10.78	5.70	208	\$10.63
\$12.2500-\$13.1875	314	\$12.80	7.81	135	\$12.81
\$15.3750-\$15.3750	762	\$15.38	7.68	306	\$15.38
\$16.8750-\$17.0000	43	\$17.00	6.58	26	\$17.00
\$17.5000-\$17.5000	375	\$17.50	8.34	103	\$17.50
\$17.8750-\$23.0000	329	\$19.35	7.67	146	\$19.30
\$29.6250-\$29.6250	2	\$29.63	6.46	1	\$26.63
\$8.0000-\$29.6250	3,026	\$13.64	7.59	1,110	\$13.91

Activity during 1998, 1997 and 1996 under the combined plans was as follows:

	January 1, 1999		January 2, 1998		December 31, 1996	
	Options	Weighted-average exercise price	Options	Weighted-average exercise price	Options	Weighted-average exercise price
Outstanding at beginning of year	2,696	\$15.10	2,577	\$13.06	2,525	\$13.49
Granted	1,117	11.40	962	16.45	1,522	16.57
Exercised	(132)	11.41	(635)	8.78	(316)	9.35
Canceled	(655)	16.30	(208)	15.40	(1,154)	19.61
Outstanding at end of year	3,026	\$13.64	2,696	\$15.10	2,577	\$13.06
Exercisable at end of year	1,110	\$13.91	700	\$13.20	886	\$9.99
Weighted-average fair value of options granted during year		\$5.21		\$8.30		\$5.24

The Company took steps to further strengthen and improve employee relationships and incentives by extending the period of exercisability for all current outstanding employee stock options from five years and three months to ten years effective as of November 3, 1998.

During 1996, under a program approved by the Board of Directors, all employees, with the exception of officers, were offered an exchange option to replace the stock options previously issued to them, with new stock options (at an exchange ratio of 1 to 1, with a restarted vesting period commencing on the date of exchange) at a new lower price. Options on 825,456 shares were canceled (reported above as cancellations) and replaced (reported above as options granted).

401(k) Plan. Under the Company's 401(k) Plan, U.S. employee participants may direct the investment of contributions to their accounts among certain mutual funds and the Trimble Navigation Limited Common Stock Fund. The Fund purchased 48,302 shares of Common Stock for an aggregate of \$650,000 in 1998. The Company, at its discretion, matches individual employee 401(k) Plan contributions up to \$100 per month. The Company's matching contributions to the 401(k) Plan were \$1,159,000 in 1998, \$1,033,000 in 1997 and \$1,031,000 in 1996.

Profit-Sharing Plan. In 1995, the Company introduced an employee profit-sharing plan in which all employees, excluding executives, participate. The plan distributes to employees approximately 5% of quarterly income before taxes. Payments under the plan during 1998, 1997, and 1996 were \$138,000, \$549,000, and \$43,000, respectively.

Common shares reserved for future issuances. As of January 1, 1999, the Company has reserved 4,078,851 common shares for issuance upon exercise of options outstanding and options available for grant under the 1993 Stock Option, 1990 Director Stock Option, and 1992 Management Discount Stock Option plans, and available for issuance under the 1988 Employee Stock Purchase plan.

#### Note 12 - Earnings Per Share:

In February 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 128, "Earnings Per Share." The Company adopted this standard, as required for its January 2, 1998, Financial Statements. For the years presented, the Company presents both basic and diluted earnings (loss) per share.

The following data show the amounts used in computing earnings (loss) per share and the effect on the weighted-average number of shares of dilutive potential Common Stock.

	January 1, 1999	January 2, 1998	December 31, 1996
-----			
(in thousands, except per share amounts)			
Numerator:			
Income available to common shareholders:			
Used in basic and diluted income (loss) per share from continuing operations	\$ (26,621)	\$ 18,521	\$ (5,611)
Used in basic and diluted income (loss) per share from discontinued operations	(26,773)	(9,242)	(5,691)
	-----	-----	-----
Used in basic and diluted income (loss) per share	\$ (53,394)	\$ 9,279	\$ (11,302)
	-----	-----	-----
Denominator:			
Weighted-average number of common shares used in basic income (loss) per share			
	22,470	22,293	22,005
Effect of dilutive securities:			
Common stock options	-	530	-
Common stock warrants	-	124	-
	-----	-----	-----
Weighted-average number of common shares and dilutive potential common shares used in diluted income (loss) per share	22,470	22,947	22,005
	=====	=====	=====
Basic income (loss) per share from continuing operations	\$ (1.19)	\$ 0.83	\$ (0.25)
Basic loss per share from discontinued operations	(1.19)	(0.41)	(0.26)
	=====	=====	=====
Basic income (loss) per share	\$ (2.38)	\$ 0.42	\$ (0.51)
	=====	=====	=====
Diluted income (loss) per share from continuing operations	\$ (1.19)	\$ 0.80	\$ (0.25)
Diluted loss per share from discontinued operations	(1.19)	(0.40)	(0.26)
	=====	=====	=====
Diluted income (loss) per share	\$ (2.38)	\$ 0.40	\$ (0.51)
	=====	=====	=====

If the Company had reported net income in 1998, an additional 387 common equivalent shares related to outstanding options and warrants would have been included in the calculation of diluted loss per share.

Note 13 - Comprehensive Income (Loss):

The components of accumulated other comprehensive income (loss), net of related tax at January 1, 1999 and January 2, 1998 were as follows:

	January 1, 1999	January 2, 1998
-----		
(in thousands)		
Currency translation adjustments	(\$811)	(\$556)
Unrealized gain (loss) on short term investments	19	8
	=====	=====
Accumulated other comprehensive income (loss)	(\$792)	(\$548)
	=====	=====

Note 14 - Statement of cash flows data:

Years ended	January 1, 1999	January 2, 1998	December 31, 1996
-----			
(In thousands)			
Supplemental schedule of noncash investing activities:			
Common stock issued for Terra Corporation	\$ -	\$ -	\$ 2,857
	-----	-----	-----
Supplemental disclosure of cash flow information:			
Interest paid	\$ 3,377	\$ 3,313	\$ 3,457
	-----	-----	-----
Income taxes paid	\$ 1,585	\$ 167	\$ 483
	-----	-----	-----



Note 15 - Litigation:

Settled Matters. On May 8, 1998, Satloc, Inc. a Trimble customer and competitor, filed a lawsuit in the United States District Court for the District of Arizona, action No. CIV 98-0837 PHX PGR. The complaint alleged misappropriation of trade secrets and confidential business information, intentional interference with contractual relations, intentional interference with prospective contractual relations, unfair competition, and unjust enrichment, arising from Trimble's hiring of a former Satloc, Inc. sales person. The complaint seeks injunctive relief, compensatory and punitive damages, an accounting, and attorney fees. Trimble has answered the complaint. In September 1998, Satloc, Inc. dismissed its claims with prejudice.

In October 1995, an employee who was terminated by the Company in 1992 filed a complaint against the Company, alleging that his incentive stock options continued to vest subsequent to his termination. He sought damages of approximately \$1,000,000. The Company filed a general denial in answer to the complaint. The trial was concluded on September 25, 1997, and the jury rendered its verdict in favor of the Company on all causes of action. The judgment in the Company's favor is now final and nonappealable.

Pending Matters. On December 6, 1995, two shareholders filed a class action lawsuit against the Company and certain directors and officers of the Company. Subsequent to that date, additional lawsuits were filed by other shareholders. The lawsuits were subsequently amended and consolidated into one complaint, which was filed on April 5, 1996. The amended consolidated complaint sought to bring an action as a class action consisting of all persons who purchased the Common Stock of the Company during the period April 18, 1995, through December 5, 1995 (the "Class Period"). The plaintiffs alleged that the defendants sought to induce the members of the Class to purchase the Company's Common Stock during the Class Period at artificially inflated prices. The plaintiffs seek rescissory or compensatory damages with interest thereon, as well as reasonable attorneys' fees and extraordinary equitable and/or injunctive relief. The Company filed a motion to dismiss, which was heard by the Court on August 16, 1996. The court rejected the plaintiffs' lawsuit, but allowed thirty days to resubmit its complaint. On September 24, 1996, the plaintiffs filed an amended complaint. On April 28, 1997, the Court granted in part, and denied in part, the Company's motion to dismiss. The Court further granted the plaintiffs leave to replead certain dismissed claims. On June 19, 1997, the plaintiffs filed a third amended and consolidated complaint. The Company has answered the complaint by denying all liability. The Company does not believe that it is possible to predict the outcome of this litigation. The parties have executed a Memorandum of Understanding with respect to settlement of the litigation and anticipate the negotiation and execution of a definitive agreement in the near term. The settlement will be subject to approval by the court.

On November 12, 1998, the Company brought suit in district court in San Jose, California against Silicon RF Technology, Inc. (SiRF) for alleged patent infringement of three Trimble patents. SiRF has a counter claim. No action by the Court has taken place yet.

On January 31, 1997, counsel for one Philip M. Clegg wrote to Trimble asserting that a license under Clegg's U.S. Patent No. 4,807,131, which was issued February 21, 1989, would be required by Trimble because of a joint venture Trimble had entered into with Caterpillar Corporation concerning the use of Trimble GPS products in combination with earth moving equipment. To date, no infringement action has been initiated on behalf of Mr. Clegg. The Company does not believe that there will be any adverse consequences to the Company as a result of this inquiry.

Other Matters. Western Atlas, a Houston based supplier to the oil exploration business, has accused Trimble and other GPS manufactures, suppliers and users of infringing two U.S. Patents owned by it, namely U.S. Patent Nos. 5,014,066 and 5,619,212. Western Atlas contends that the foregoing patents cover certain aspects of GPS receiver design. Lawsuits for infringement of these two patents are currently pending in federal district court in Houston, Texas against Garmin International Inc. and Rockwell International Corp. Although Trimble has not been sued by Western Atlas on the foregoing patents, Trimble has instructed its counsel thoroughly to investigate the infringement threat. At present Trimble does not expect this threat to have adverse consequences on Trimble's business.

The Company is also a party to other disputes incidental to its business. The Company believes the ultimate liability of the Company as a result of such disputes, if any, would not be material to its overall financial position, results of operations, or liquidity.

Note 16 - Selected quarterly financial data (unaudited):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
-----				
(In thousands, except per share data)				
1998				
Total revenue	\$ 71,656	\$ 71,919	\$ 57,420	\$ 59,284
Gross margin	37,591	36,419	24,828	26,718
Operating income (loss)	4,340	2,434	(13,387)	(16,567)
Net income (loss) from continuing operations	4,060	2,631	(15,182)	(18,130)
Net income (loss) from discontinued operations	(2,145)	(2,376)	(22,252)	-
Net income (loss)	1,915	255	(37,434)	(18,130)
Basic net income (loss) per share from continuing operations	0.17	0.11	(0.68)	(0.82)
Basic net income (loss) per share from discontinued operations	(0.09)	(0.10)	(1.00)	-
Basic net income (loss)	\$ 0.08	\$ 0.01	\$ (1.68)	\$ (0.82)
Diluted net income (loss) per share from continuing operations	0.17	0.11	(0.68)	(0.82)
Diluted net income (loss) per share from discontinued operations	(0.09)	(0.10)	(1.00)	-
Diluted net income (loss)	\$ 0.08	\$ 0.01	\$ (1.68)	\$ (0.82)
1997				
Total revenue	\$ 57,470	\$ 65,415	\$ 61,806	\$ 74,203
Gross margin	30,848	36,286	34,290	38,567
Operating income (loss)	3,647	6,722	4,022	5,452
Net income loss from continuing operations	3,281	6,189	3,997	5,052
Net income loss from discontinued operations	(1,852)	(2,324)	(2,405)	(2,659)
Net income (loss)	1,429	3,865	1,592	2,393
Basic net income (loss) per share from continuing operations	0.14	0.29	0.18	0.23
Basic net income (loss) per share from discontinued operations	(0.08)	(0.11)	(0.11)	(0.12)
Basic net income (loss)	\$ 0.06	\$ 0.18	\$ 0.07	\$ 0.11
Diluted net income (loss) per share from continuing operations	0.14	0.27	0.17	0.21
Diluted net income (loss) per share from discontinued operations	(0.08)	(0.10)	(0.10)	(0.11)
Diluted net income (loss)	\$ 0.06	\$ 0.17	\$ 0.07	\$ 0.10

Significant quarterly items include the following: (i) in the third quarter of 1998 the Company recorded a \$2,453,000 restructuring charge, (ii) in the fourth quarter of 1998 the Company recorded a \$7,827,000 restructuring charge, (iii) in the second quarter of 1997 the Company recorded revenue of \$2,222,000 from a technology license; (iv) in the third quarter of 1997 the Company recorded revenue of \$1,800,000 from a development agreement in connection with an irrevocable nonrefundable nonrecurring engineering fee.

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Shareholders Trimble Navigation Limited

We have audited the accompanying consolidated balance sheets of Trimble Navigation Limited as of January 1, 1999 and January 2, 1998, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended January 1, 1999. Our audits also included the financial statement schedule listed in the index at Item 14(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements and schedule referred to above present fairly, in all material respects, the consolidated financial position of Trimble Navigation Limited at January 1, 1999 and January 2, 1998, and the consolidated results of its operations and its cash flows for each of the three years in the period ended January 1, 1999 in conformity with generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

ERNST & YOUNG LLP

Palo Alto, California  
January 26, 1999

Item 9. Changes in and Disagreements with Accountants on Accounting Financial Disclosure

Not applicable.

PART III

Item 10. Directors and Executive Officers of the Registrant

The section titled "Nominees" and the section titled "Compliance with Section 16(a) of the Exchange Act" in the Company's Proxy Statement for its 1999 annual meeting of shareholders to be held on June 2, 1999, (Proxy Statement) with respect to directors of the Company and compliance of the directors and executive officers of the Company with Section 16(a) of the Exchange Act required by this item are incorporated herein by reference.

The information with respect to the executive officers of the Company required by this item is included in Part I hereof under the caption "Executive Officers of the Registrant."

Item 11. Executive Compensation

The following sections of the Proxy Statement are incorporated herein by reference: "Compensation of Executive Officers," "Compensation of Directors," "Compensation Committee Interlocks and Insider Participation," and "Compensation Committee Report" and "Company Performance."

Item 12. Security Ownership of Certain Beneficial Owners and Management

The section titled "Security Ownership of Certain Beneficial Owners and Management" of the Proxy Statement is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions

The section titled "Certain Relationships and Related Transactions" of the Proxy Statement is incorporated herein by reference.

PART IV

Item 14. Exhibits, Financial Statement Schedules, and Reports on form 8-K

(a) 1. Financial Statements

The following consolidated financial statements required by this item are included in Part II Item 8 hereof under the caption "Financial Statements and Supplementary Data."

	Page In This Annual Report On Form 10-K
Consolidated Balance Sheets at January 1, 1999 and January 2, 1998.....	44
Consolidated Statements of Operations for each of the three fiscal years in the period ended January 1, 1999.....	45
Consolidated Statement of Shareholders' Equity for the three fiscal years ended January 1, 1999.....	46
Consolidated Statements of Cash Flows for each of the three fiscal years in the period ended January 1, 1999.....	47
Notes to Consolidated Financial Statements	48-65

2. Financial Statement Schedules

The following financial statement schedule is filed as part of this report:

	Page In This Annual Report On Form 10-K
Schedule II - Valuation and Qualifying Accounts.....	S-1

All other schedules have been omitted as they are either not required or not applicable, or the required information is included in the consolidated financial statements or the notes thereto.

3. Exhibits

Exhibit  
Number

- 3.1 Restated Articles of Incorporation of the Company filed June 25, 1986. (18)
- 3.2 Certificate of Amendment of Articles of Incorporation of the Company filed October 6, 1988. (18)
- 3.3 Certificate of Amendment of Articles of Incorporation of the Company filed July 18, 1990. (18)
- 3.4 Certificate of Determination of the Company filed February 19, 1999. (18)
- 3.8 Amended and Restated Bylaws of the Company. (16)
- 4.1 Specimen copy of certificate for shares of Common Stock of the Company. (1)
- 4.2 Preferred Shares Rights Agreement dated as of February 18, 1999. (17)
- 10.4 Form of Indemnification Agreement between the Company and its officers and directors. (1)
- 10.5 Loan Agreement dated December 21, 1984, between the Company and certain lenders. (1)
- 10.6 Note Purchase Agreement dated July 7, 1986, between the Company and certain purchasers. (1)
- 10.7 Form of Common Stock Purchase Agreement dated March 1989 between the Company and certain investors. (1)
- 10.8\* Memorandum of Understanding dated March 11, 1988, and License Agreement dated September 5, 1988, between the Company and AEG Aktiengesellschaft, with Amendments No. 1, No. 2, and No. 3 thereto, and Letter Agreement dated December 22, 1989, between Trimble and Telefunken Systemtechnik GmbH. (1)
- 10.9 Note Purchase Agreement dated December 6, 1988, between the Company and AEG Aktiengesellschaft. (1)
- 10.10 Master Equipment Lease Agreement dated April 26, 1990, between the Company and MATSCO Financial Corporation, and schedule of lease extensions. (1)
- 10.11\* Agreement dated February 6, 1989, between the Company and Pioneer Electronic Corporation. (1)
- 10.15 International OEM Agreement dated May 30, 1989, between the Company and Geotronics AB. (1)

- 10.16 Patent License Agreement dated January 18, 1990, between the Company and the United States Navy.(1)
- 10.18 Asset Purchase Agreement dated April 19, 1990, between the Company; TR Navigation Corporation, a subsidiary of the Company; and Tracor Aerospace, Inc. (1)
- 10.19 Promissory Note dated April 20, 1990, for the principal amount of \$400,000 issued by TR Navigation Corporation to DAC International, Inc. (1)
- 10.20 Guarantee dated April 20, 1990, between the Company and DAC International, Inc. (1)
- 10.21 Indemnification Agreement dated April 20, 1990, between the Company; TR Navigation Corporation, a subsidiary of the Company; DAC International, Inc.; and Banner Industries, Inc. (1)
- 10.22 Distributor Agreement dated April 20, 1990, between TR Navigation Corporation, a subsidiary of the Company, and DAC International, Inc. (1)
- 10.23 Distributor Agreement dated December 6, 1989, between the Company and DAC International, Inc. (1)
- 10.24 Lease Agreement dated April 26, 1990, between the Company and NCNB Texas National Bank, Trustee for the Company's offices located at 2105 Donley Drive, Austin, Texas. (1)
- 10.32 1990 Director Stock Option Plan, as amended, and form of Outside Director Non statutory Stock Option Agreement. (8)
- 10.35 Sublease Agreement dated January 2, 1991, between the Company, Aetna Insurance Company, and Poqet Computer Corporation for property located at 650 North Mary Avenue, Sunnyvale, California. (2)
- 10.36 Lease Agreement dated February 20, 1991, between the Company, John Arrillaga Separate Property Trust, and Richard T. Peery Separate Property Trust for property located at 880 West Maude, Sunnyvale, California. (2)
- 10.37 Share and Asset Purchase Agreement dated February 22, 1991, among the Company and Datacom Group Limited and Datacom Software Research Limited. (3)
- 10.38 License Agreement dated June 29, 1991, between the Company and Avion Systems, Inc. (3)
- 10.40 Industrial Lease Agreement dated December 3, 1991, between the Company and Aetna Life Insurance Company for property located at 585 North Mary Avenue, Sunnyvale, California. (5)
- 10.41 Industrial Lease Agreement dated December 3, 1991, between the Company and Aetna Life Insurance Company for property located at 570 Maude Court, Sunnyvale, California. (5)

- 10.42 Industrial Lease Agreement dated December 3, 1991, between the Company and Aetna Life Insurance Company for property located at 580 Maude Court, Sunnyvale, California. (5)
- 10.43 Industrial Lease Agreement dated December 3, 1991, between the Company and Aetna Life Insurance Company for property located at 490 Potrero Avenue, Sunnyvale, California. (5)
- 10.44 Master Lease Agreement dated September 18, 1991, between the Company and United States Leasing Corporation. (5)
- 10.45 Equipment Financing Agreement dated May 15, 1991, between the Company and Corestates Bank, N.A.(5)
- 10.46+ 1992 Management Discount Stock Option and form of Nonstatutory Stock Option Agreement (5).
- 10.48 Equipment Financing Agreement dated April 27, 1992, with AT&T Systems Leasing Corporation. (7)
- 10.49\*\* Memorandum of Understanding dated December 24, 1992, between the Company and Pioneer Electronics Corporation. (7)
- 10.51 Revolving Credit Agreement for \$15,000,000 dated January 27, 1993, with Barclays Business Credit, Inc. (7)
- 10.52 \$30,000,000 Note and Warrant Purchase Agreement dated June 13, 1994, with John Hancock Life Insurance Company. (9)
- 10.53 Revolving Credit Agreement for \$20,000,000 and \$10,000,000, dated August 4, 1995, with the First National Bank of Boston and Mellon Bank N.A., respectively. (1)
- 10.54 Revolving Credit Agreement - First Amendment (12)
- 10.55 Revolving Credit Agreement - Second Amendment (12)
- 10.56 Revolving Credit Agreement - Third Amendment (13)
- 10.57 Revolving Credit Agreement - Fourth Amendment (14)
- 10.58 Revolving Credit Agreement for \$50,000,000 dated August 27, 1997, with Fleet National Bank, Bank of Boston N.A., Sanwa Bank of California, and ABN Amro Bank N.V., respectively. (15)
- 10.59 1993 Stock Option Plan, as amended (16)
- 10.60 1988 Employee Stock Purchase Plan, as amended (16)
- 10.61 Revolving Credit Agreement - Loan - Third Amendment (18)
- 10.62+ Employment Agreement between the Company and Bradford W. Parkinson dated September 1, 1998. (18)



- 10.63+ Employment Agreement between the Comany and Robert S. Cooper dated September 1, 1998. (18)
- 10.64+ Consulting Agreement between the company and Bradford W. Parkinson dated September 1, 1998. (18)
- 10.65+ Standby Consulting Agreement between the Comapny and Bradford W. Parkinson dated September 1, 1998. (18)
- 10.66+ Consulting Agreement between the Comapny and Robert S. Cooper dated September 1, 1998. (18)
- 10.67+ Employment Agreement between the Company and Steven W. Berglund dated March 17, 1999. (18)
- 10.68+ Nonqualified deferred Compensation Plan of the Company effective February 10, 1994. (18)
- 21.1 Subsidiaries of the Company. (17)
- 23.1 Consent of Ernst & Young LLP, independent auditors (see page 66).
- 24.1 Power of Attorney (included on page 75).
- 27.1 Financial Data Schedule (17)
- \* Confidential treatment has been previously granted for certain portions of this exhibit pursuant to an order dated July 11, 1990.
- \*\* Confidential treatment has been previously granted for certain portions of this exhibit pursuant to an order dated March 2, 1995.
- + Management contract or compensatory plan or arrangement required to be filed as an exhibit to this Annual Report on Form 10-K pursuant to Item 14(c) thereof.
- (1) Incorporated by reference to identically numbered exhibits filed in response to Item 16(a), "Exhibits," of the registrant's Registration Statement on Form S-1, as amended (File No. 33-35333), which became effective July 19, 1990.
- (2) Incorporated by reference to identically numbered exhibits filed in response to Item 14(a), "Exhibits," of the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1990.
- (3) Incorporated by reference to identically numbered exhibits filed in response to Item 16, "Exhibits and Forms 8-K," of the registrant's Report on 10-Q for the quarter ended September 30, 1991, as amended on Form 8, filed February 11, 1992.
- (4) Incorporated by reference to Exhibit No. 4.1 filed in response to Item 8, "Exhibits," of the registrant's Registration Statement on Form S-8 (File No. 33-45167), which became effective January 21, 1992.

- (5) Incorporated by reference to identically numbered exhibits filed in response to Item 16(a) "Exhibits," of the registrant's Registration Statement on Form S-1 (File No. 33-45990), which was filed February 18, 1992.
- (6) Incorporated by reference to Exhibits 4.1, 4.2 and 4.3 filed in response to Item 8, "Exhibits," of the registrant's Registration Statement on Form S-8 (File No. 33-57522), which was filed on January 28, 1993.
- (7) Incorporated by reference to identically numbered exhibits filed in response to Item 14(a), "Exhibits," of the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1992.
- (8) Incorporated by reference to identically numbered exhibits filed in response to Item 14(a), "Exhibits," of the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1993.
- (9) Incorporated by reference to identically numbered exhibits filed in response to Item 6A, "Exhibits," of the registrant's Annual Report on Form 10-Q for the quarter ended June 30, 1994.
- (10) Incorporated by reference to identically numbered exhibits filed in response to Item 14(a), "Exhibits," of the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1994.
- (11) Incorporated by reference to identically numbered exhibits filed in response to Item 14(a), "Exhibits," of the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1995.
- (12) Incorporated by reference to identically numbered exhibits filed in response to Item 6A, "Exhibits," of the registrant's Annual Report on Form 10-Q for the quarter ended June 30, 1996.
- (13) Incorporated by reference to identically numbered exhibits filed in response to Item 6A, "Exhibits," of the registrant's Annual Report on Form 10-Q for the quarter ended September 30, 1996.
- (14) Incorporated by reference to identically numbered exhibits filed in response to Item 6A, "Exhibits," of the registrant's Annual Report on Form 10-Q for the quarter ended June 30, 1997.
- (15) Incorporated by reference to identically numbered exhibits filed in response to Item 6A, "Exhibits," of the registrant's Annual Report on Form 10-Q for the quarter ended September 30, 1997.
- (16) Incorporated by reference to identically numbered exhibits filed in response to Item 6A, "Exhibits," of the registrant's Annual Report on Form 10-Q for the quarter ended April 3, 1998.

(17) Incorporated by reference to Exhibit No. 1 to the registrant's Registration Statement on Form 8-A which was filed on February 18, 1999.

(18) Filed herewith.

(b) Reports on Form 8-K.

No reports on Form 8-K were filed by the registrant during the fourth quarter ended January 1, 1999.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

TRIMBLE NAVIGATION LIMITED

By: /s/ Steven W. Berglund  
Steven W. Berglund,  
President and Chief  
Executive Officer

March 26, 1999

POWER OF ATTORNEY

Know all persons by these presents, that each person whose signature appears below constitutes and appoints Bradford W. Parkinson as his attorney-in-fact, with the power of substitution, for him in any and all capacities, to sign any amendments to this Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorney-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Capacity in which Signed	Date
/s/ Steven W. Berglund Steven W. Berglund	President, Chief Executive Officer	March 26, 1999
/s/ Mary Ellen Genoves Mary Ellen Genovese	Vice President Finance, and Chief Financial Officer (principal financial and principal accounting officer)	March 26, 1999
/s/ Bradford Parkinson Bradford W. Parkinson	Director	March 26, 1999
/s/ Robert S. Cooper Robert S. Cooper	Director	March 25, 1999
/s/ John B. Goodrich John B. Goodrich	Director	March 26, 1999
/s/ William Hart William Hart	Director	March 26, 1999
/s/ Charles R. Trimble Charles R. Trimble	Director	March 24, 1999

SCHEDULE II

TRIMBLE NAVIGATION LIMITED  
VALUATION AND QUALIFYING ACCOUNTS  
(IN THOUSANDS OF DOLLARS)

	Balance at beginning of period	(Reductions) Additions	Write-Offs **	Balance at end of period
	-----	-----	-----	-----
Allowance for doubtful accounts:				
Year ended December 31, 1996	\$1,074	\$1,595	\$276	\$2,393
Year ended January 2, 1998	2,393	205	134	2,464
Year ended January 1, 1999	2,464	458	702	2,220

	Balance at beginning of period	(Reductions) Additions	Write-Offs **	Balance at end of period
	-----	-----	-----	-----
Inventory Reserves:				
Year ended December 31, 1996	\$5,569	\$6,189	\$1,876	\$9,882
Year ended January 2, 1998	9,882	2,389	2,862	9,409
Year ended January 1, 1999	9,409	7,057	2,347	14,119

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\*\* Net of recoveries

INDEX TO EXHIBITS

EXHIBIT NUMBER	EXHIBIT	SEQUENTIALLY NUMBERED PAGE
3.1	Restated Articles of Incorporation of the Company filed June 25, 1986.	79-80
3.2	Certificate of Amendment of Articles of Incorporation of the Company filed October 6, 1988.	81-82
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3.4	Certificate of Determination.	84-88
10.61	Revolving Credit Agreement - Loan - Third Amendment	89-102
10.62	Employment Agreement between Registrant and Bradford W. Parkinson dated September 1, 1998.	103-111
10.63	Employment Agreement between Registrant and Robert S. Cooper dated September 1, 1998	113-121
10.64	Consulting Agreement between Registrant and Bradford W. Parkinson dated September 1, 1998.	120-126
10.65	Standby Consulting Agreement between Registrant and Bradford W. Parkinson dated September 1, 1998.	127-132
10.66	Consulting Agreement between Registrant and Robert S. Cooper dated September 1, 1998	133-138
10.67	Emploment Agreement between Registrant and Steven W. Berglund dated March 17, 1999.	139-142
10.68	Nonqualified Deferred Compesation Plan of the Company effective February 10, 1994.	143-165
21.1	Subsidiaries of the Company	166
23.1	Consent of Ernst & Young LLP, Independent Auditors	167
27.1	Financial Data Schedule for the years ended January 1, 1999 and January 2, 1998	168





TRIMBLE NAVIGATION LIMITED

RESTATED ARTICLES OF INCORPORATION

Charles R. Trimble and Robert A. Trimble certify that:

1. They are the President and the Secretary, respectively, of Trimble Navigation Limited, a California corporation.

2. The Articles of Incorporation of this corporation are amended and restated to read as follows: I

The name of this corporation is Trimble Navigation Limited.

II

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the general corporation law of California, other than the banking business, the trust company business, or the practice of a profession permitted to be incorporated by the California Corporations Code.

III

This corporation is authorized to issue only one class of shares of stock, designated Common Stock, and the total number of shares that this corporation is authorized to issue is forty million (40,000,000).

Upon the effective date of this amendment to the Articles of Incorporation, each outstanding share of Common Stock shall be split up and converted into four shares of Common Stock.

3. The foregoing amendment and restatement of the Articles of Incorporation has been duly approved by the Board of Directors of this corporation.

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4. The foregoing amendment and restatement of the Articles of Incorporation does not require the approval of the outstanding shares of the corporation because the amendment only effected a stock split in accordance with Section 902(c) of the California Corporations Code.

The undersigned further declare under penalty of perjury that the matters set forth in this certificate are true and correct of their own knowledge.

Executed at Sunnyvale, California, June 24, 1986.

/s/ Charles R. Trimble  
Charles R. Trimble, President

/s/ Robert A. Trimble  
Robert A. Trimble, Secretary

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TRIMBLE NAVIGATION LIMITED

CERTIFICATE OF AMENDMENT OF  
ARTICLES OF INCORPORATION OF  
TRIMBLE NAVIGATION LIMITED

Charles R. Trimble and Robert A. Trimble hereby certify that:

1. They are President and Secretary, respectively, of Trimble Navigation Limited, a California corporation.
2. The Articles of Incorporation of this corporation are amended to add the following Article IV:

"IV

Section 1. Limitation of Directors' Liability. The liability of the directors of this corporation for monetary damages shall be eliminated to the fullest extent permissible under California law.

Section 2. Indemnification of Corporate Agents. This corporation is authorized to provide indemnification of its agents (as defined in Section 317 of the California General Corporation Law) through bylaw provisions agreements with the agents, vote of shareholders or disinterested directors or otherwise, in excess of the indemnification otherwise permitted by such Section 317, subject only to the limits on such excess indemnification set forth in Section 204 of the California General Corporation Law with respect to actions for breach of duty to the corporation and its shareholders.

Section 3. Repeal or Modification. Any repeal or modification of the foregoing provisions of this Article IV shall not adversely affect any right of indemnification or limitation of liability of an agent of this corporation relating to acts or omissions occurring prior to such repeal or modification."

3. The foregoing Certificate of Amendment of Articles of Incorporation has been duly approved byn the Board of Directors.

4. The foregoing Certificate of Amendment of Articles of Incorporation has been duly approved by the required vote of shareholders in accordance with Section 902 of the California General Corporation Law. The total number of outstanding shares of stock of the corporation is 7,270,041 shares of Common Stock. The number of shares voting in favor of the Certificate of Amendment of Articles of Incorporation equaled or exceeded the vote required. The percentage vote required was more than 50% of the total outstanding shares voting together.

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We further declare under penalty of perjury under the laws of the State of California that the matters set forth in the Certificate of Amendment of Articles of Incorporation are true of our own knowledge.

Executed at Sunnyvale, California this 7th day of April, 1988.

/s/ Charles R. Trimble  
Charles R. Trimble, President

/s/ Robert A. Trimble  
Robert A. Trimble, Secretary

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TRIMBLE NAVIGATION LIMITED

CERTIFICATE OF AMENDMENT OF  
ARTICLES OF INCORPORATION OF  
TRIMBLE NAVIGATION LIMITED

Charles R. Trimble and James C. Hunt hereby certify that:

1. They are President and Chief Financial Officer, respectively, of Trimble Navigation Limited, a California corporation.

2. Article III of the Articles of Incorporation of this corporation is amended and restated to read in its entirety as follows:

"III

This corporation is authorized to issue two classes of shares to be designated respectively Preferred Stock ("Preferred") and Common Stock ("Common"). The total number of shares of Preferred this corporation shall have the authority to issue is 3,000,000 without par value, and the total number of shares of Common this corporation shall have the authority to issue is 40,000,000 without par value. The Preferred shares authorized by these Articles of Incorporation may be issued from time to time in one or more series. The Board of Directors is hereby authorized to fix or alter the rights, preferences and privileges of any wholly unissued class or series of Preferred shares, and the number of shares constituting any such series and the designation thereof, or any of them."

3. This Certificate of Amendment of Articles of Incorporation has been duly approved by the Board of Directors.

4. This foregoing Certificate of Amendment of Articles of Incorporation has been duly approved by the required vote of shareholders in accordance with Section 902 of the California General Corporation Law. The total number of outstanding shares of stock of the corporation is 11,653,805 shares of Common Stock. The number of shares voting in favor of the Certificate of Amendment of Articles of Incorporation equaled or exceeded the vote required. The percentage vote required was more than 50% of the total outstanding shares voting together.

We further declare under penalty of perjury under the laws of the State of California that the matters set forth in this Certificate of Amendment of Articles of Incorporation are true of our own knowledge.

Executed at Sunnyvale, California this 17th day of July, 1990.

/s/ Charles R. Trimble  
Charles R. Trimble, President

/s/ James C. Hunt  
James C. Hunt, Chief Financial Officer

## TRIMBLE NAVIGATION LIMITED

CERTIFICATE OF DETERMINATION OF RIGHTS, PREFERENCES  
AND PRIVILEGES OF  
SERIES A PARTICIPATING PREFERRED STOCK  
OF TRIMBLE NAVIGATION LIMITED

The undersigned, Bradford Parkinson and John Goodrich do hereby certify:

1. That they are the duly elected and acting President and Chief Executive Officer and Secretary, respectively, of Trimble Navigation Limited, a California corporation (the "Corporation").

2. That pursuant to the authority conferred upon the Board of Directors by the Articles of Incorporation of the said Corporation, the said Board of Directors on February 3, 1999 adopted the following resolution creating a series of 65,000 shares of Preferred Stock designated as Series A Participating Preferred Stock:

"RESOLVED, that pursuant to the authority vested in the Board of Directors of the Corporation by the Articles of Incorporation, the Board of Directors does hereby provide for the issue of a series of Preferred Stock of the Corporation, to be designated "Series A Participating Preferred Stock," no par value, initially consisting of 65,000 shares, and to the extent that the designations, powers, preferences and relative and other special rights and the qualifications, limitations and restrictions of the Series A Participating Preferred Stock are not stated and expressed in the Articles of Incorporation does hereby fix and herein state and express the designations, powers, preferences and relative and other special rights and the qualifications, limitations and restrictions of such series of Preferred Stock as follows (all terms used herein which are defined in the Articles of Incorporation shall be deemed to have the meanings provided herein):

Section 1 Designation and Amount. The shares of such series shall be designated as "Series A Participating Preferred Stock," no par value, and the number of shares constituting such series shall be 65,000.

Section 2 Proportional Adjustment. In the event the Corporation shall at any time after the issuance of any share or shares of Series A Participating Preferred Stock (i) declare any dividend on Common Stock of the Corporation ("Common Stock") payable in shares of Common Stock, (ii) subdivide the outstanding Common Stock or (iii) combine the outstanding Common Stock into a smaller number of shares, then in each such case the Corporation shall simultaneously effect a proportional adjustment to the number of outstanding shares of Series A Participating Preferred Stock.

Section 3 Dividends and Distributions.

(a) Subject to the prior and superior right of the holders of any shares of any series of Preferred Stock ranking prior and superior to the shares of Series A Participating Preferred Stock with respect to dividends, the holders of shares of Series A Participating Preferred Stock shall be entitled to receive when, as and if declared by the Board of Directors out of funds legally available for the purpose, quarterly dividends payable in cash on the last day of January, April, July and October, in each year (each such date being referred

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to herein as a "Quarterly Dividend Payment Date"), commencing on the first Quarterly Dividend Payment Date after the first issuance of a share or fraction of a share of Series A Participating Preferred Stock, in an amount per share (rounded to the nearest cent) equal to 1,000 times the aggregate per share amount of all cash dividends, and 1,000 times the aggregate per share amount (payable in kind) of all non-cash dividends or other distributions other than a dividend payable in shares of Common Stock or a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise), declared on the Common Stock since the immediately preceding Quarterly Dividend Payment Date, or, with respect to the first Quarterly Dividend Payment Date, since the first issuance of any share or fraction of a share of Series A Participating Preferred Stock.

(b) The Corporation shall declare a dividend or distribution on the Series A Participating Preferred Stock as provided in paragraph (a) above immediately after it declares a dividend or distribution on the Common Stock (other than a dividend payable in shares of Common Stock).

(c) Dividends shall begin to accrue on outstanding shares of Series A Participating Preferred Stock from the Quarterly Dividend Payment Date next preceding the date of issue of such shares of Series A Participating Preferred Stock, unless the date of issue of such shares is prior to the record date for the first Quarterly Dividend Payment Date, in which case dividends on such shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Quarterly Dividend Payment Date or is a date after the record date for the determination of holders of shares of Series A Participating Preferred Stock entitled to receive a quarterly dividend and before such Quarterly Dividend Payment Date, in either of which events such dividends shall begin to accrue from such Quarterly Dividend Payment Date. Accrued but unpaid dividends shall not bear interest. Dividends paid on the shares of Series A Participating Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. The Board of Directors may fix a record date for the

determination of holders of shares of Series A Participating Preferred Stock entitled to receive payment of a dividend or distribution declared thereon, which record date shall be no more than 30 days prior to the date fixed for the payment thereof.

Section 4 Voting Rights. The holders of shares of Series A Participating Preferred Stock shall have the following voting rights:

(a) Each share of Series A Participating Preferred Stock shall entitle the holder thereof to 1,000 votes on all matters submitted to a vote of the stockholders of the Corporation.

(b) Except as otherwise provided herein or by law, the holders of shares of Series A Participating Preferred Stock and the holders of shares of Common Stock shall vote together as one class on all matters submitted to a vote of the stockholders of the Corporation.

(c) Except as required by law or as required by Section 11, holders of Series A Participating Preferred Stock shall have no special voting rights and their consent shall not be required (except to the extent they are entitled to vote with holders of Common Stock as set forth herein) for taking any corporate action.

#### Section 5 Certain Restrictions.

(a) The Corporation shall not declare any dividend on, make any distribution on, or redeem or purchase or otherwise acquire for consideration any shares of Common Stock after the first issuance of a share or fraction of a share of Series A Participating Preferred Stock unless

concurrently therewith it shall declare a dividend on the Series A Participating Preferred Stock as required by Section 3 hereof.

(b) Whenever quarterly dividends or other dividends or distributions payable on the Series A Participating Preferred Stock as provided in Section 3 are in arrears, thereafter and until all accrued and unpaid dividends and distributions, whether or not declared, on shares of Series A Participating Preferred Stock outstanding shall have been paid in full, the Corporation shall not

(i) declare or pay dividends on, make any other distributions on, or redeem or purchase or otherwise acquire for consideration any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Participating Preferred Stock;

(ii) declare or pay dividends on, make any other distributions on any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with Series A Participating Preferred Stock, except dividends paid ratably on the Series A Participating Preferred Stock and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled;

(iii) redeem or purchase or otherwise acquire for consideration shares of any stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series A Participating Preferred Stock, provided that the Corporation may at any time redeem, purchase or otherwise acquire shares of any such parity stock in exchange for shares of any stock of the Corporation ranking junior (either as to dividends or upon dissolution, liquidation or winding up) to the Series A Participating Preferred Stock;

(iv) purchase or otherwise acquire for consideration any shares of Series A Participating Preferred Stock, or any shares of stock ranking on a parity with the Series A Participating Preferred Stock, except in accordance with a purchase offer made in writing or by publication (as determined by the Board of Directors) to all holders of such shares upon such terms as the Board of Directors, after consideration of the respective annual dividend rates and other relative rights and preferences of the respective series and classes, shall determine in good faith will result in fair and equitable treatment among the respective series or classes.

(c) The Corporation shall not permit any subsidiary of the Corporation to purchase or otherwise acquire for consideration any shares of stock of the Corporation unless the Corporation could, under paragraph (a) of this Section 5, purchase or otherwise acquire such shares at such time and in such manner.

Section 6 Reacquired Shares. Any shares of Series A Participating Preferred Stock purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and canceled promptly after the acquisition thereof. All such shares shall upon their cancellation become authorized but unissued shares of Preferred Stock and may be reissued as part of a new series of Preferred Stock to be created by resolution or resolutions of the Board of Directors, subject to the conditions and restrictions on issuance set forth herein and, in the Restated Articles of Incorporation, as then amended.

#### Section 7 Liquidation, Dissolution or Winding Up.

(a) Upon any liquidation (voluntary or otherwise), dissolution or winding up of the Corporation, no distribution shall be made to the holders of shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Participating Preferred Stock unless,



prior thereto, the holders of shares of Series A Participating Preferred Stock shall have received fifty thousand dollars (\$50,000) per share, plus an amount equal to accrued and unpaid dividends and distributions thereon, whether or not declared, to the date of such payment (the "Series A Liquidation Preference"). Following the payment of the full amount of the Series A Liquidation Preference, no additional distributions shall be made to the holders of shares of Series A Participating Preferred Stock unless, prior thereto, the holders of shares of Common Stock shall have received an amount per share (the "Common Adjustment") equal to the quotient obtained by dividing (i) the Series A Liquidation Preference by (ii) 1,000 (as appropriately adjusted as set forth in subparagraph (c) below to reflect such events as stock splits, stock dividends and recapitalization with respect to the Common Stock) (such number in clause (ii) of this sentence, the "Adjustment Number"). Following the payment of the full amount of the Series A Liquidation Preference and the Common Adjustment in respect of all outstanding shares of Series A Participating Preferred Stock and Common Stock, respectively, holders of Series A Participating Preferred Stock and holders of shares of Common Stock shall receive their ratable and proportionate share of the remaining assets to be distributed in the ratio of the Adjustment Number to 1 with respect to such Preferred Stock and Common Stock, on a per share basis, respectively.

(b) In the event, however, that there are not sufficient assets available to permit payment in full of the Series A Liquidation Preference and the liquidation preferences of all other series of Preferred Stock, if any, which rank on a parity with the Series A Participating Preferred Stock, then such remaining assets shall be distributed ratably to the holders of such parity shares in proportion to their respective liquidation preferences. In the event, however, that there are not sufficient assets available to permit payment in full of the Common Adjustment, then such remaining assets shall be distributed ratably to the holders of Common Stock.

(c) In the event the Corporation shall at any time after the Rights Dividend Declaration Date (i) declare any dividend on Common Stock payable in shares of Common Stock, (ii) subdivide the outstanding Common Stock, or (iii) combine the outstanding Common Stock into a smaller number of shares, then in each such case the Adjustment Number in effect immediately prior to such event shall be adjusted by multiplying such Adjustment Number by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Section 8 Consolidation, Merger, etc. In case the Corporation shall enter into any consolidation, merger, combination or other transaction in which the shares of Common Stock are exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case the shares of Series A Participating Preferred Stock shall at the same time be similarly exchanged or changed in an amount per share (subject to the provision for adjustment hereinafter set forth) equal to 1,000 times the aggregate amount of stock, securities, cash and/or any other property (payable in kind), as the case may be, into which or for which each share of Common Stock is changed or exchanged. In the event the Corporation shall at any time after the Rights Dividend Declaration Date (i) declare any dividend on Common Stock payable in shares of Common Stock, (ii) subdivide the outstanding Common Stock, or (iii) combine the outstanding Common Stock into a smaller number of shares, then in each such case the amount set forth in the preceding sentence with respect to the exchange or change of shares of Series A Participating Preferred Stock shall be adjusted by multiplying such amount by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Section 9 No Redemption. The shares of Series A Participating Preferred Stock shall not be redeemable.

Section 10 Ranking. The Series A Participating Preferred Stock shall rank junior to all other series of the Corporation's Preferred Stock as to the payment of dividends and the distribution of assets, unless the terms of any such series shall provide otherwise.

Section 11 Amendment. The Restated Articles of Incorporation of the Corporation shall not be further amended in any manner which would materially alter or change the powers, preference or special rights of the Series A Participating Preferred Stock so as to affect them adversely without the affirmative vote of the holders of a majority of the outstanding shares of Series A Participating Preferred Stock, voting separately as a class.

Section 12 Fractional Shares. Series A Participating Preferred Stock may be issued in fractions of a share which shall entitle the holder, in proportion to such holder's fractional shares, to exercise voting rights, receive dividends, participate in distributions and to have the benefit of all other rights of holders of Series A Participating Preferred Stock.

RESOLVED FURTHER, that the President or any Vice President and the Secretary or any Assistant Secretary of this corporation be, and they hereby are, authorized and directed to prepare and file a Certificate of Determination of Rights, Preferences and Privileges in accordance with the foregoing resolution and the provisions of California law and to take such actions as they may deem necessary or appropriate to carry out the intent of the foregoing resolution."

3. That the authorized number of shares of Series A Participating Preferred Stock of the Corporation is 65,000 and that no shares of Series A Participating Preferred Stock have been issued.

We further declare under penalty of perjury that the matters set forth in the foregoing Certificate of Determination are true and correct of our own knowledge.

Executed at Sunnyvale, California on February 18, 1999.

/s/ Bradford Parkinson  
Bradford Parkinson  
President and Chief Executive Officer

/s/ John Goodrich  
John Goodrich  
Secretary



## TRIMBLE NAVIGATION LIMITED

## THIRD AMENDMENT

THIS THIRD AMENDMENT (this "Amendment") is entered into as of February 16, 1999 by and among TRIMBLE NAVIGATION LIMITED, a California corporation having its chief executive office at 645 North Mary Avenue, Sunnyvale, California 94086 (the "Borrower") and FLEET NATIONAL BANK, a national banking association organized under the laws of the United States and having a head office at One Federal Street, Boston, Massachusetts 02110, as the Agent and as a Lender, BANKBOSTON, N.A., a national banking association, organized under the laws of the United States and having a head office at One Hundred Federal Street, Boston, Massachusetts 02110, as the Syndication Agent and as a Lender, SANWA BANK CALIFORNIA, a banking corporation organized under the laws of the State of California and having an office at 220 Almaden Boulevard, 2nd Floor, San Jose, California 95113, as a Lender, and ABN AMRO BANK N.V., a Netherlands banking corporation having an office at 101 California Street, Suite 4550, San Francisco, California 94115, as a Lender, under the Loan Agreement (as defined below), to which reference is made for the definitions of all capitalized terms, used, but not otherwise defined, herein.

## R E C I T A L S

WHEREAS, the parties have entered into a Loan Agreement dated as of August 27, 1997 among the Borrower, the Agent, the Syndication Agent, and the lenders from time to time party thereto (the "Lenders"), as amended by a Letter of Amendment dated December 17, 1997, and a Second Letter of Amendment dated August 11, 1998 (the "Agreement"), pursuant to which the Lenders issued a Revolving Credit Loan Commitment to the Borrower in the maximum principal amount of \$50,000,000.00;

WHEREAS, pursuant to a certain Waiver Letter dated October 27, 1998 and a certain Supplement to Loan Agreement and Additional Waiver Letter dated December 9, 1998 (the "December 9, 1998 Supplement"), the Borrower was granted a limited waiver with respect to the Borrower's compliance with certain covenants contained in the Agreement for the Borrower's fiscal quarters ended October 2, 1998 and January 1, 1999, conditional upon the satisfaction of certain specified waiver conditions contained therein on or prior to February 16, 1999, including inter alia the agreement of the Agent and the Lenders to further amend the Agreement in certain respects;

WHEREAS, the Agent and the Lenders have agreed to amend the Agreement as hereinafter set forth;

NOW THEREFORE, in consideration of the mutual benefits to be derived from the parties' continuing relationship under the Agreement and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Borrower, the Agent, the Syndication Agent, and the Lenders hereby agree that the Agreement is hereby amended, effective February 16, 1999 (the "Effective Date"), as follows:

1. The following defined terms appearing in Section 1.1 of the Agreement are hereby amended in their entirety, respectively, to read as follows:

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"Commitment" means the Lenders' several commitments to make or maintain the Loans as set forth in Section 2.1 hereof in the maximum outstanding amount of each Lender's Pro Rata Share of \$50,000,000, minus, until the fifth (5th) Business Day following delivery of the Borrower's quarterly financial statements pursuant to Section 5.3.3 of the Agreement and the related Officer's Certificate as required by Section 5.3.4 reflecting Operating Income and Net Income equal to or greater than one dollar (\$1.00), a reserve of \$25,000,000, as such amount may be reduced pursuant to Section 2.6.4.

"Financing Documents" means, collectively, this Agreement, each Note, the Security Documents, the Side Letter, the Post-Closing Letter, if any, any Letter of Credit, any Letter of Credit Agreement, any agreement with any Lender providing any interest rate protection arrangement and each other agreement, instrument or document now or hereafter executed in connection herewith or therewith.

"Net Income" means, for any fiscal period, the net after tax income (loss) of the Borrower and any Subsidiaries for such period, excluding (i) any extraordinary or other non-recurring gains, and (ii) any gains from the sale or disposition of assets other than in the ordinary course of business, all as determined on an accrual and consolidated basis in accordance with GAAP, plus, to the extent included in the calculation of net income, any amount taken as a one-time charge against earnings attributable to (i) the settlement of the class action litigation described in Exhibit A attached hereto, (ii) the closing of the Borrower's commercial marine division, or (iii) charges resulting from the reduction in Borrower's employees resulting from the Borrower's switch to contract manufacturing, provided that the amount of all such charges added to net income shall not exceed \$2,000,000 in the aggregate.

"Security Documents" means any and all documents, instruments and agreements now or hereafter providing security for the Obligations and any other Indebtedness of the Borrower or any Subsidiary to any of the Lenders, the Issuing Lender and/or the Collateral Agent, the Agent or the Syndication Agent, including without limitation the following documents, instruments and agreements: any mortgages on and collateral assignments of real property interests (fee, leasehold and easement) of the Borrower and any Subsidiary

granting Liens thereon; landlord lien waivers and consents as may be reasonably requested by the Collateral Agent; security agreements granting Liens on all Borrower's and any Subsidiary's fixtures and tangible and intangible personal property; collateral assignments of Borrower's and any Subsidiary's contracts, licenses, permits, easements and leases; collateral assignments of Borrower's and any Subsidiary's copyrights; conditional assignments of Borrower's and any Subsidiary's trademarks and patents; any subordination agreement; any software escrow agreement; any guaranty; any pledge of the capital stock of any Subsidiary; casualty and liability insurance policies providing coverage to the Collateral Agent for the benefit of the Lenders; UCC financing statements or similar filings perfecting the above-referenced security interests, pledges and assignments, all as executed, delivered to and accepted by the Collateral Agent and as may be required by this Agreement, as any of the foregoing may be amended from time to time.

2. Section 1.1 of the Agreement is hereby further amended by the addition of the following new defined terms to be added alphabetically thereto:

"Collateral Agent" means Fleet National Bank, in its capacity as collateral agent under the Security Documents.

"Issuing Lender" means Fleet National Bank, in its capacity as the issuer of Letters of Credit hereunder.

"LC Participant" has the meaning set forth in Section 2.1.1(e).

"Letter of Credit" has the meaning set forth in Section 2.1.1(a).

"Letter of Credit Agreement" means an application and agreement for a Standby Letter of Credit, in such form as may at any time be customarily required by the Issuing Lender for its issuance of Standby Letters of Credit.

"Letter of Credit Fees" means the fee payable by the Borrower in accordance with Section 2.2.2(b).

"Net Worth" means the excess of the total assets of the Borrower and its Subsidiaries over total liabilities, as determined on a consolidated basis in accordance with GAAP.

"Operating Income" means operating income as determined in accordance with GAAP, plus, to the extent included in the calculation of operating income, any amount taken as a one-time charge against earnings attributable to (i) the settlement of the class action litigation described in that certain Disclosure Letter dated as of February 16, 1999, (ii) the closing of the Borrower's commercial marine division, or (iii) charges resulting from the reduction in Borrower's employees resulting from the Borrower's switch to contract manufacturing, provided that the amount of all such charges added to operating income shall not exceed \$2,000,000 in the aggregate.

"Standby Letter of Credit" means any standby letter of credit or similar instrument issued or deemed issued for the account of the Borrower pursuant to Section 2.1.1 for the purpose of supporting obligations of the Borrower or incurred in the ordinary course of business with respect to insurance obligations and workers' compensation, surety bonds and other similar statutory obligations, and all obligations customarily supported by standby letters of credit and satisfactory to the Issuing Lender.

"Total Capitalization" means, as of the date of any determination, the sum of (i) Total Funded Debt, and (ii) Net Worth.

"Total Funded Debt" means, as of the date of any determination, the sum of (i) the principal amount of all Obligations, including, without limitation, the Revolving Loans and the Letters of Credit, (ii) the principal amount of all Subordinated Debt, and (iii) all Capitalized Lease Obligations of the Borrower and its Subsidiaries.

"Unpaid Drawing" has the meaning set forth in Section 2.1.1(g).

3. The first paragraph of Section 2.1 of the Agreement is hereby amended in its entirety to read as follows:

Section 2.1. The Revolving Credit Loans. Each of the Lenders severally agrees, subject to the terms and conditions of this Agreement and provided no Default or Event of Default has occurred and is continuing, to make Advances of Revolving Credit Loans to the Borrower from time to time after receipt by the Agent from time to time prior to the Revolving Credit Repayment Date of, and at the times provided for in, a Request and an Interest Rate Election from the Borrower in accordance with this Agreement, during the period commencing on the Closing Date and ending on the Business Day immediately preceding the Revolving Credit Repayment Date, in an aggregate principal amount at any one time outstanding not to exceed the lesser of (i) such Lender's Pro Rata Share of the Revolving Credit Loan Commitment less (ii) in each case, such Lender's Pro Rata Share of the aggregate outstanding stated amount of any Letters of Credit or Letter of Credit Agreements and any Unpaid Drawing; and

4. Section 2.1 of the Agreement is hereby further amended by the addition of the following new Section 2.1.1 immediately following the last paragraph thereof:

Section 2.1.1. The Letters of Credit

(a) Subject to the terms and conditions hereof and provided no Default or Event of Default has occurred and is continuing, at any time and from time to time prior to the Revolving Credit Repayment Date, the Borrower may request that the Issuing Lender issue for the account of the Borrower one or more irrevocable Letters of Credit denominated in Dollars, and otherwise in a form customarily used by the Issuing Lender, or in such other form as has been approved by the Issuing Lender, in support of such obligations of the Borrower described in the definitions of Standby Letter of Credit and any other obligations of the Borrower that are reasonably acceptable to the Agent and the Issuing Lender and otherwise permitted to exist pursuant to this Agreement (each such letter of credit, a "Letter of Credit").

(b) The Issuing Lender agrees to issue (subject to the terms and conditions contained herein) following its receipt of a request for a Letter of Credit for the account of the Borrower one or more Letters of Credit provided that the Issuing Lender shall be under no obligation to issue any Letter of Credit if at the time of such issuance:

(i) any order, judgment or decree of any governmental authority or arbitrator shall purport by its terms to enjoin or restrain the Issuing Lender from issuing such Letter of Credit or any requirement of law applicable to the Issuing Bank or any request or directive (whether or not having the force of law) from any governmental authority with jurisdiction over the Issuing Lender shall prohibit or request that the Issuing Lender refrain from, the issuance of letters of credit generally or such Letter of Credit in particular, or shall impose upon the Issuing Lender with respect to such Letter of Credit any restriction or reserve or capital requirement (for which the Issuing Lender is not otherwise compensated) not in effect on the date of this Agreement, or any unreimbursed loss, cost or expense which was not applicable, in effect or known to the Issuing Lender as of the date of this Agreement and which the Issuing Lender in good faith deems material to it; or

(ii) the Issuing Lender shall have received notice from any other Lender prior to the issuance of such Letter of Credit to the effect that one or more of the conditions specified in Section 3.1.2 are not then satisfied, or that the issuance of such Letter of Credit would violate any provision of this Section 2.1.1.

(c) Notwithstanding the foregoing, (i) no Letter of Credit shall be issued if the stated amount of which, when added to the aggregate amount of all Letters of Credit and any Unpaid Drawing at such time, would exceed the lesser of (x) \$5,000,000, and (y) when added to the aggregate principal amount of all Revolving Credit Loans then outstanding, an amount equal to the Commitment; and (ii) each Letter of Credit shall by its terms terminate or be terminable by the Issuing Lender on such date that would result in all drawings thereunder, being funded pursuant to the terms thereof prior to the earlier of (x) the date which occurs twelve (12) months after the date of issuance thereof (although any such Letter of Credit may be extendable for successive periods of up to twelve (12) months, but not beyond the sixth Business Day prior to the Revolving Credit Repayment Date, on terms acceptable to the Issuing Lender), and (y) the date which is six (6) Business Days prior to the Revolving Credit Repayment Date.

(d) Each request for a Letter of Credit shall be made by submission by the Borrower to the Agent of a Letter of Credit Agreement, duly completed and executed by the Borrower and in effect at such time, no later than five (5) Business Days prior to the proposed date of issuance of the Letter of Credit, provided that if the express provisions of any Letter of Credit Agreement conflict with the express provisions of this Agreement, the provisions of this agreement shall control to the extent of such conflict. The making of each request for a Letter of Credit shall be deemed to be a representation and

warranty by the Borrower that such Letter of Credit may be issued in accordance with, and will not violate the requirements of, this Section 2.1.1. The Agent shall promptly notify, and deliver to, the Issuing Lender each such Letter of Credit Agreement. Upon the issuance of any Letter of Credit, the Issuing Lender shall promptly notify the Agent and each Lender of such issuance; and

(e) Immediately upon issuance of a Letter of Credit, the Issuing Lender shall be deemed to have sold and transferred to each Lender, other than the Issuing Lender (each such Lender, in its capacity under this subsection 2.1.1(e), an "LC Participant") and each LC Participant shall be deemed to have irrevocably and unconditionally purchased and received from the Issuing Lender, without recourse or warranty, an undivided interest and participation in such Letter of Credit to the extent of such LC Participant's Pro Rata Share in such Letter of Credit, each drawing made thereunder and the obligations of the Borrower with respect thereto, and any security therefor or guaranty pertaining thereto. Upon any change in the Commitment, or in the Pro Rata Shares of the Lenders pursuant to Section 9.11 hereof, it is hereby agreed that, with respect to all outstanding Letters of Credit and any Unpaid Drawing at such time, there shall be an automatic adjustment to the participations pursuant to this subsection 2.1.1(e) to reflect the new Pro Rata Shares of any assigning Lender and its assignee or of all Lenders with respect to the Commitment, as the case may be;

(f) In determining whether to pay under any Letter of Credit, the Issuing Lender shall have no obligation relative to the other Lenders other than to confirm that any documents required to be delivered under such Letter of Credit appear to have been delivered and that they appear to substantially comply on their face with the requirements of such Letter of Credit. Any action taken or omitted to be taken by the Issuing Lender under or in connection with any Letter of Credit if taken or omitted in the absence of gross negligence or willful misconduct, shall not create for the Issuing Lender any resulting liability to the Borrower, the Guarantors, the Agent or any other Lender.

(g) The Borrower agrees to reimburse the Issuing Lender by making payment to the Issuing Lender in immediately available funds at the office of the Issuing Lender specified for such payment by the Issuing Lender for any payment or disbursement made by the Issuing Lender under any Letter of Credit (each, an "Unpaid Drawing") immediately after, and, in any event on the date of such payment or disbursement, with interest on the amount so paid or disbursed by the Issuing Lender to the extent not reimbursed prior to 2.00 P.M. (Boston time) on the date of such payment or disbursement, from and including the date paid or disbursed to but excluding the date the Issuing Lender was reimbursed by the Borrower therefor at a rate equal to the Default Rate. The Issuing Lender shall give the Borrower prompt notice of each drawing under any Letter of Credit, provided that the failure to give any such notice shall in no way affect, impair or diminish the Borrower's obligations hereunder. The Borrower hereby authorizes and instructs the Issuing Lender to charge against the Borrower's accounts with the Issuing Lender on each date on which a payment is due under a Letter of Credit, and on any subsequent date if and to the extent any such payment is not made when due, an amount up to the principal, interest and fees due and payable to the Issuing Lender thereunder and such charge shall be deemed payment thereunder to the extent that immediately available funds are then in such accounts. The Issuing Lender shall use reasonable efforts in accordance with the Issuing Lender's customary procedures to give subsequent notice of any such charge to the Borrower, but the failure to give such notice shall not affect the validity of any such charge;

(h) In the event that the Issuing Lender makes any payment under any Letter of Credit and the Borrower shall have failed to reimburse the Issuing Lender under any Letter of Credit or Letter of Credit Agreement, and any outstanding Indebtedness of the Borrower relating thereto, the Issuing Lender shall promptly notify the Agent, which shall promptly notify each LC Participant of such failure, and each LC Participant shall promptly pay to the Issuing Lender in Dollars its Pro Rata Share of such unreimbursed amount in same day



funds. If the Agent so notifies, prior to 12 P.M. (Boston time) on any Business Day, each such LC Participant shall make available to the Issuing Lender such payment on such Business Day, or if such notice is given after 12 P.M. (Boston time) on any Business Day, on the next succeeding Business Day. If and to the extent that any such LC Participant shall not have so made such funds available to the Issuing Lender, such LC Participant agrees to pay to the Issuing Lender forthwith on demand such amount together with interest thereon, for each day from the date such amount was due under this subsection 2.1.1(h) until the date such amount is paid to the Issuing Lender, at the Federal Funds Rate. The obligations of each LC Participant under this subsection 2.1.1(h) shall be absolute and unconditional and all payments due from each LC Participant hereunder shall be made notwithstanding the occurrence or continuation of an Event of Default or the failure to satisfy any condition set forth in Article 3 of this Agreement;

(i) Whenever the Issuing Lender receives a payment of a reimbursement obligation as to which it has received any payments from the LC Participants pursuant to subsection 2.1.1(h) above, the Issuing Lender shall pay to each LC Participant which has paid its Pro Rata Share thereof, in Dollars and in same day funds, an amount equal to such LC Participant's share (based upon the proportionate aggregate amount originally funded by such LC Participant to the aggregate amount funded by all LC Participants) of the principal amount of such reimbursement obligation and interest thereon accruing after the purchase of the respective participations;

(j) The obligation of each LC Participant to make payments to the Issuing Lender with respect to any Letter of Credit and such LC Participant's participation therein and the obligation of the Borrower to make payments to the Issuing Lender, shall not be subject to any qualification or exception whatsoever and shall be made in accordance with the terms and conditions of this Agreement, including, without limitation, any of the following circumstances:

(i) Any lack of validity or enforceability of this Agreement or any of the other Financing Documents;

(ii) The existence of any claim, set-off, defense or other right which the Borrower may have at any time against a beneficiary named in a Letter of Credit or any transferee or assignee of any Letter of Credit (or any Person for whom any such transferee or assignee may be acting), the Issuing Lender, the Agent, any Lender, or any other Person, whether in connection with this Agreement, any Letter of Credit, the transactions contemplated herein or any unrelated transactions (including any underlying transactions between the Borrower or any other Person and the beneficiary named in any Letter of Credit);

(iii) Any draft, certificate or any other document presented under the Letter of Credit upon which payment has been made in good faith and according to its terms proving to be forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue or inaccurate in any respect;

(iv) The surrender or impairment of any collateral or any other security for the Obligations or the performance or observance of any of the terms of any of the Financing Documents;

(v) The occurrence of any Default or Event of Default; or

(vi) The failure to give notice of the issuance of any Letter of Credit;

provided that, no LC Participant shall be obligated to pay such LC Participant's Pro Rata Share of any unreimbursed amount arising from any wrongful payment made by the issuing Lender under a Letter of Credit as a result of acts or omissions constituting willful misconduct or gross negligence on the part of the Issuing Lender.

(k) Indemnification. In addition to amounts payable as elsewhere provided in this Agreement, the Borrower agrees to protect, indemnify, pay and save the Issuing Lender, the Agent, the Syndication Agent and the LC Participants harmless from and against any and all claims, demands, liabilities, damages, losses, costs, charges and expenses (including reasonable attorneys' fees) which the Issuing Lender, the Agent or any LC Participant (each, an "Indemnified Party") may incur or be subject to (other than as a result of acts or omissions of any such Indemnified Party constituting gross negligence or willful misconduct as determined by a court of competent jurisdiction) as a consequence, directly or indirectly, of

(i) the issuance of any Letter of Credit; or

(ii) the failure of the Issuing Lender to honor a drawing under any Letter of Credit as a result of any act or omission, whether rightful or wrongful, of any present or future de jure or de facto governmental authority (all such acts or omissions being hereinafter referred to collectively as "Government Acts").

(l) As among the Borrower and the Indemnified Parties, the Borrower assumes all risks of the acts and omissions of, or misuse of any of the Letters of Credit by, the respective beneficiaries of such Letters of Credit. In furtherance and not in limitation of the foregoing, subject to the provisions of the Letter of Credit Agreements, the Indemnified Parties shall not be responsible for:

(i) the form, validity, sufficiency, accuracy, genuineness or legal effect of any document submitted by any Person in connection with the application for and issuance of and presentation of drafts with respect to any of the Letters of Credit, even if it should prove to be, in any or all respects, invalid, insufficient, inaccurate, fraudulent or forged;

(ii) the validity or sufficiency of any instrument transferring or assigning or purporting to transfer or assign any Letter of Credit or the rights or benefits thereunder or proceeds thereof, in whole or in part, which may prove to be invalid or ineffective for any reason;

(iii) the failure of any drawing to strictly comply with the terms of a Letter of Credit;

(iv) errors, omissions, interruptions or delays in transmission or delivery of any messages, by mail, cable, telegraph, telex or otherwise, whether or not they be indecipherable;

(v) errors in interpretation of technical terms other than those resulting from gross negligence or willful misconduct;

(vi) any loss or delay in the transmission or otherwise of any document required in order to make a drawing under any Letter of Credit or of the proceeds thereof;

(vii) the non-application or misapplication by the beneficiary of any Letter of Credit of the proceeds of any drawing under such Letter of Credit; or

(viii) any consequences arising from causes beyond the control of the Issuing Lender, the Agent or any LC Participant, including, without limitation, any Government Acts.

None of the foregoing shall affect, impair or prevent the vesting of any of the Indemnified Parties' rights or powers under this Section 2.1.1.

(m) If, notwithstanding the provisions of Section 2.1.1(c) hereof, any Letter of Credit is outstanding on the Revolving Credit Repayment Date (each, a "Post-Termination Letter of Credit"), then on or prior to the Revolving Credit Payment Date, the Borrower shall, promptly on demand by the Issuing Lender, deposit with the Issuing Lender, with respect to each Post-Termination Letter of Credit then outstanding, as the Issuing Lender shall specify, cash collateral ("Cash Collateral") in an amount necessary to reimburse the Issuing Lender for payments to be made by the Issuing Lender under any Post-Termination Letter of Credit. Such Cash Collateral shall be held by the Issuing Lender, as security for, and to provide for the payment of, the obligations of the Borrower with respect to the Post-Termination Letters of Credit. In the event that any amount of Cash Collateral remains after the expiration of all Post-Termination Letters of Credit, so long as no Obligation which is then due and payable is outstanding on such date, the Issuing Lender shall return such amount promptly to the Borrower.

5. Section 2.2.2 of the Agreement is hereby amended by the addition of the following new Section 2.2.2.4 immediately at the end thereof:

2.2.2.4 Letter of Credit Fees. The Borrower shall pay to the Agent for the account of the Issuing Lender and each LC Participant for each Letter of Credit issued by the Lender a per annum fee equal to the product of (x) the stated amount thereof, and (y) the Applicable Margin then in effect for Libor Loans, payable annually in advance on the date of issuance and each renewal date thereof, plus, an additional amount payable on the dates specified by the Issuing Lender and for the sole account of the Issuing Lender, such standard fees and costs as the Issuing Lender may from time to time establish for issuance, transfer, amendment and negotiation of each Letter of Credit and other customary charges of the Issuing Lender with respect thereto (the "Letter of Credit Fees").

6. Section 2.6.4 of the Agreement is hereby amended in its entirety to read as follows:

Section 2.6.4. Permanent Reduction of Commitment. At the Borrower's option, the Commitment may be permanently and irrevocably reduced in whole or in part by an amount of at least \$500,000 and to the extent in excess thereof in integral multiples of \$100,000 at any time; provided that (i) the Borrower gives the Agent written notice of the exercise of such option at least three (3) Business Days prior to the effective date thereof, (ii) the aggregate outstanding balance of the Revolving Credit Loans plus the aggregate outstanding amount of any Letters of Credit and any Undrawn Amounts, does not exceed the Commitment, as so reduced on the effective date of such reduction, and (iii) the Borrower is not, and after giving effect to such reduction, would not be in violation of Section 2.6.3. Any such reduction shall concurrently reduce the Dollar amount of each Lender's Pro Rata Share of the Commitment.

7. Section 2.6 of the Agreement is hereby further amended by the addition of the following new Section 2.6.5 immediately at the end thereof:

Section 2.6.5. If at any time the aggregate principal amount of the Revolving Credit Loans plus the aggregate outstanding stated amount of any Letters of Credit and any Unpaid Drawing shall exceed the Commitment, the Borrower shall immediately pay to the Agent in immediately available Dollars for the ratable account of the Lenders the amount of such excess.

8. Section 2.8 of the Agreement is hereby amended in its entirety to read as follows:

Section 2.8. Use of Proceeds. The Borrower shall use the proceeds of the Loans and obtain Letters of Credit solely for Borrower's working capital and for general corporate purposes.

9. Section 3.1.2 of the Agreement is hereby amended in its entirety to read as follows:

Section 3.1.2. Conditions Precedent To All Loans. The Commitment and the obligation of each Lender to make or maintain its Pro Rata Share of any Advance or Loan and/or the Issuing Lender to consider any request for a Letter of Credit, are subject to performance by the Borrower of all its obligations under this Agreement and to the satisfaction of the following further conditions precedent:

(a) The fact that, immediately prior to and upon the making of each Loan or issuance of any Letter of Credit, no Event of Default or Default shall have occurred and be continuing;

(b) The fact that the representations and warranties of the Borrower contained in Article 4, infra and in each of the other Financing Documents, are true and correct in all material respects on and as of the date of each Advance, Loan or Letter of Credit except as altered hereafter by actions consented to or not prohibited hereunder. The Borrower's delivery of the Notes to the Lenders and of each Request and Letter of Credit Agreement to the Agent shall be deemed to be a representation and warranty by the Borrower as of the date of such Advance, Loan or Letter of Credit as to the facts specified in Sections 3.1.2(a) and (b);

(c) Receipt by the Agent on or prior to the Business Day specified in the definition of Interest Rate Election of a written Request stating the amount requested for the Loan or Advance in question and an Interest Rate Election for such Loan or Advance, all signed by a duly Authorized Representative of the Borrower on behalf of the Borrower;

(d) That there exists no law or regulation by any governmental authority having jurisdiction over the Agent or any of the Lenders which would make it unlawful in any respect for such Lender to make its Pro Rata Share of the Loan or Advance, or purchase a participation in any Letter of Credit, including, without limitation, Regulations U, T, and X of the Board of Governors of the Federal Reserve System; and

(e) No Material Adverse Effect has occurred.

10. Section 5.1.10 of the Agreement ("Minimum Fixed Charge Coverage Ratio") is hereby deleted in its entirety and the following new Section 5.1.10 inserted in its stead:

Section 5.1.10. Maximum Ratio of Total Funded Debt to Total Capitalization. Commencing January 1, 1999, maintain a ratio of (i) Total Funded Debt to (ii) Total Capitalization of less than .55:1.00.

11. Section 5.1.11 of the Agreement is hereby amended in its entirety to read as follows:

Section 5.1.11. Minimum Consolidated Tangible Net Worth. (i) Maintain a Consolidated Tangible Net Worth in an amount not less than the Borrower's Consolidated Tangible Net Worth as of the end of the Borrower's 1998 fiscal year, minus \$5,000,000, and (ii) comply with Section 8K of the Note Purchase Agreement dated as of June 13, 1994 among the Borrower, John Hancock Mutual Life and John Hancock Life Insurance, as the same may be amended, amended and restated, supplemented or otherwise modified from time to time.

12. Section 5.1.12 of the Agreement is hereby deleted in its entirety and the following new Section 5.1.12 inserted in its stead:

Section 5.1.12. Minimum Cash Balances. Maintain at all times on and after February 16, 1999 unrestricted cash balances in an amount equal to or greater than (x) on any date prior to the delivery of the Borrower's financial statements to the Agent pursuant to Section 5.3.3 and the related Officer's Certificate as required by Section 5.3.4 reflecting Operating Income and Net Income equal to or greater than one dollar (\$1.00) for two (2) consecutive fiscal quarters, the sum of (i) \$25,000,000, plus fifty percent (50%) or more of the aggregate principal outstanding amount of all Obligations, including, without limitation, the Revolving Loans and the Letters of Credit in one or more accounts maintained by the Borrower with the Agent, plus (ii) the balance of such Obligations in one or more accounts maintained by the Borrower with a Lender other than the Agent, and (y) thereafter (i) fifty percent (50%) or more of the aggregate outstanding principal amount of all Obligations, including, without limitation, the Revolving Loans and the Letters of Credit, plus (ii) the balance of the principal amount of such Obligations in one or more accounts maintained by the Borrower with a Lender other than the Agent.

13. Section 5.1.13 of the Agreement is hereby amended in its entirety to read as follows:

Section 5.1.13. Minimum Quick Ratio Maintain at the end of each fiscal quarter of the Borrower a ratio of (i) the sum of (w) cash on hand or on deposit in any bank or trust company which has not suspended business, (x) Cash Equivalent Investments (without duplication with clause (w) above), and (y) net outstanding amount of accounts receivable to (ii) (x) Current Liabilities, excluding the principal outstanding amount of any Obligations at any time classified as Current Liabilities, of not less than 1.5:1.0. Each item described in clauses (i) and (ii) of this Section 5.1.13 shall be calculated as of the last day of the Borrower fiscal quarter and include only the item(s) in question of the Borrower and its Subsidiaries on a consolidated basis.

14. Section 5.2.3 of the Agreement is hereby amended in its entirety to read as follows:

Section 5.2.3. Acquisitions, Dissolution, etc. Acquire, in one or a series of transactions, any properties or assets (other than the acquisition of inventory, materials and equipment in the ordinary course of business) or ownership interests in another Person, or dissolve, liquidate, wind up, merge or consolidate or combine with another Person (other than mergers, consolidations or other combinations in which the Borrower is the surviving entity); (i) on any date prior to the delivery of the Borrower's financial statements to the Agent pursuant to Section 5.3.3 reflecting operating income, as determined in accordance with GAAP, and Net Income equal to or greater than one dollar (\$1.00), and (ii) as to which on or before the thirtieth (30th) day prior to the consummation of any such acquisition, the Borrower has delivered to the Agent a pro-forma Compliance Certificate on a consolidated basis (including the to-be-acquired assets and any assumed liabilities or if ownership interests are acquired, the to-be-acquired Person if such Person is to be a Subsidiary and if not, the to-be-acquired ownership interests, all measured as set forth below in this Section 5.2.3), which such pro-forma Compliance Certificate shall indicate that no Default or Event of Default exists or would exist following consummation of the permitted transaction and that the Borrower would be in compliance with (on a consolidated basis including the to-be-acquired assets and any assumed liabilities or if ownership interests are acquired, the to-be-acquired Person if such Person is to be a Subsidiary and if not, the to-be-acquired ownership interests), Sections 5.1.10, 5.1.10A, 5.1.11, 5.1.12 and 5.1.13 and Sections 5.2.8 and 5.2.9 following consummation of the permitted transaction, including the to-be-acquired assets, Person or ownership interests and the operating results thereof on the same basis and for the same periods as the Borrower is measured for each such covenant, respectively.

15. Section 5.2.4 of the Agreement is hereby amended in its entirety to read as follows:

Section 5.2.4. Disposition of Assets. Effect any disposition of material assets, other than (i) the disposition of assets in the ordinary course of business, consistent with past practices, (ii) subject to Section 5.2.8, the disposition of assets not to exceed 15% of Consolidated Tangible Net Worth in the aggregate over the period commencing on the Closing Date and ending on August 31, 2000, the value of which assets shall be based upon the aggregate book value of all such assets determined as of the date of the sale thereof and prior to such disposition, and (iii) in addition to dispositions of assets permitted under clauses (i) and (ii) of this Section 5.2.4, the disposition of assets associated with the Borrower's transition to contract manufacturing.

16. Section 5.2.9 of the Agreement is hereby amended in its entirety to read as follows:

Section 5.2.9. Minimum Operating and Net Income. (i) During the period beginning with the Borrower's fiscal quarter ending March, 1999 and ending on the fiscal quarter ending December, 1999, have a negative Operating Income or a negative Net Income for any two fiscal quarters, and (ii) as of the end of each fiscal quarter of the Borrower commencing with the Borrower's fiscal quarter ending in March, 2000, have a negative Operating Income, or a negative Net Income for the rolling four quarter fiscal period consisting of such fiscal quarter and the three immediately preceding fiscal quarters.

17. Section 5.2.10 of the Agreement ("Dividends, Payments and Distributions") is hereby amended by deleting clause (iii) thereof and substituting in its stead the following new clause (iii):

(iii) on any date following the delivery of the Borrower's financial statements to the Agent pursuant to Section 5.3.3 and the related Officer's Certificate as required by Section 5.3.4 reflecting Operating Income and Net Income equal to or greater than one dollar (\$1.00) for three (3) consecutive fiscal quarters, the Borrower shall be permitted to repurchase shares of its own capital stock provided that on or before the thirtieth (30th) day prior to the consummation of any such repurchase, the Borrower has delivered to the Agent a pro-forma Compliance Certificate on a consolidated basis, which such pro-forma Compliance Certificate shall indicate that, assuming the repurchase had occurred on the last day of the most recently ended fiscal quarter, no Default or Event of Default exists or would exist following consummation of such repurchase and that, after giving effect thereto, the Borrower would be in compliance with Sections 5.1.10, 5.1.10A, 5.1.11, 5.1.12 and 5.1.13 and Sections 5.2.8 and 5.2.9.

18. Exhibit 3.1.1.10 to the Agreement (Form of Compliance Certificate) is hereby deleted and a new Exhibit 3.1.1.10 in the form attached hereto as "Exhibit 3.1.1.10" substituted in its stead.

This Amendment shall take effect as of the Effective Date upon receipt by the Agent of the last item specified below (other than any item expressly deferred or waived in writing by the Majority Lenders):

(i) this Amendment duly executed by the parties hereto;

(ii) a certificate of the Secretary or an Assistant Secretary of the Borrower with respect to resolutions of its Board of Directors authorizing the execution and delivery of this Amendment, and any other

documents required to be delivered by this Amendment, identifying the officer(s) authorized to execute, deliver and take all other actions required thereunder;

(iii) a Disclosure Letter executed by the Borrower with respect to the representations and warranties contained in the Loan Agreement;

(iv) an Escrow Agreement and each of the Security Documents required by the Agent in connection with the creation and perfection of a Lien on all assets of the Borrower in favor of the Collateral Agent, for the benefit of the Agent, the Syndication Agent, the Issuing Lender, and the Lenders as security for the Obligations duly executed by an authorized officer of the Borrower, (v) an Opinion of the Borrower's counsel with respect to this Amendment and the Security Documents and the Escrow Agreement referenced in clause (iv) above;

(v) payment to the Agent, for the ratable benefit of the Lenders approving this Amendment, of the amendment fee in the amount of \$50,000; and

(vi) such other documents, and evidence of completion of such other matters, as the Agent or the Required Lenders reasonably may deem necessary or desirable.

The Borrower hereby represents and warrants to the Lenders that no Default or Event of Default exists under the Agreement. Nothing in this Second Letter of Amendment shall be construed to be an amendment of any other provision of the Agreement and all of the provisions of the Agreement shall remain in full force and effect.

This Amendment supersedes the December 9, 1998 Supplement, the terms of which shall have no further force or effect.

This Amendment is executed as an instrument under seal and shall be governed by and construed in accordance with the laws of The Commonwealth of Massachusetts without regard to its conflicts of law rules. All parts of the Agreement not affected by this Amendment are hereby ratified and affirmed in all respects, provided that if any provision of the Agreement shall conflict or be inconsistent with this Amendment, the terms of this Amendment shall supersede and prevail. Upon and after the date of this Amendment all references to the Agreement in that document, or in any related document, shall mean the Agreement as amended by this Amendment. Except as expressly provided in this Amendment, the execution and delivery of this Amendment does not and will not amend, modify or supplement any provision of, or constitute a consent to or a waiver of any noncompliance with the provisions of the Agreement, and, except as specifically provided in this Amendment, the Agreement shall remain in full force and effect. This Amendment may be executed in one or more counterparts with the same effect as if the signatures hereto and thereto were upon the same instrument.

[THIS SPACE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, each of the Borrower, the Agent, the Syndication Agent, and the Lenders in accordance with Section 9.5 of the Agreement, has caused this Amendment to be executed and delivered by their respective duly authorized officers as an instrument under seal as of the Effective Date.

BORROWER:

TRIMBLE NAVIGATION LIMITED

By: /s/ John E. Huey  
John E. Huey  
Treasurer

AGENT:

FLEET NATIONAL BANK

By:/s/ Mathew M. Glauninger  
Mathew M. Glauninger  
Vice President and Senior  
Relationship Manager

SYNDICATION AGENT:

BANKBOSTON, N.A.

Print Name

By: /s/ Anthony B. Kwee  
Anthony B. Kwee  
Title: Vice President



LENDERS:

FLEET NATIONAL BANK

By: /s/ Mathew M. Glauninger  
Mathew M. Glauninger  
Vice President and Senior  
Relationship Manager

BANKBOSTON, N.A.

Print Name By: /s/ Anthony B. Kwee  
Anthony B. Kwee  
Title: Vice President

SANWA BANK CALIFORNIA

By:

Print Name  
Title:

ABN AMRO BANK N.V.

Print Name By: /s/ Dianne D. Barkley  
Diannie D. Barkley  
Title: Group Vice President



## EMPLOYMENT AGREEMENT

This Employment Agreement (this "Agreement") is entered into as of September 1, 1998 (the "Effective Date"), between Trimble Navigation Limited, a California corporation (the "Company"), and Dr. Bradford W. Parkinson (the "Executive").

WHEREAS, the Company desires to employ the Executive as of the Effective Date and the Executive desires to accept employment with the Company on the terms and conditions set forth below;

WHEREAS, simultaneously with the execution hereof, the Company and the Executive are entering into a Consulting Agreement (the "Consulting Agreement") pursuant to which Executive will consult to Company immediately following the Employment Period (as defined in Section 2 below) and are entering a Standby Consulting Agreement (the "Standby Consulting Agreement");

NOW, THEREFORE, in consideration of the foregoing recitals and the respective covenants and agreements of the parties contained in this document, the Company and the Executive agree as follows:

1. Employment and Duties. During the Employment Period (as defined in Section 2 below), the Executive will serve as President and Chief Executive Officer of the Company. The duties and responsibilities of the Executive will include the duties and responsibilities for the Executive's corporate offices and positions as set forth in the Company's bylaws from time to time in effect and such other duties and responsibilities as the board of directors of the Company (the "Board of Directors") may from time to time reasonably assign to the Executive, in all cases to be consistent with the Executive's corporate offices and positions. Notwithstanding the foregoing, in the event a successor is hired to serve as President and/or Chief Executive Officer of the Company, Executive will continue as an employee of the Company for the Employment Period (as defined in Section 2 below) and will perform all such tasks as are reasonably required of him by such President and/or Chief Executive Officer. The Executive will perform faithfully the executive duties assigned to him to the best of his ability and in the best interests of the Company. The Executive will continue to serve as a director of the Company without additional compensation.

2. Employment Period.

(a) Term. The employment period will begin upon the Effective Date and will continue thereafter until May 31, 1999 (the "Employment Period"), unless sooner terminated pursuant to the provisions of this Agreement. At the end of the Employment Period, Executive will continue as a consultant to the Company pursuant to the Consulting Agreement.

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(b) Early Termination. The Company may terminate the Executive's employment prior to the end of the Employment Period by giving the Executive 30 days' advance notice in writing. If the Company terminates the Executive's employment prior to the end of the Employment Period for any reason other than Cause or Disability, both as defined below, or if the Executive terminates his employment for Good Reason, as defined below, the provisions of Sections 10(a)(i), 10(b) and 10(c) will apply. The Executive may terminate his employment prior to the end of the Employment Period by giving the Company 30 days' advance written notice. If the Executive terminates his employment prior to the end of the Employment Period other than for Good Reason, the provisions of Section 10(a)(ii) will apply. Upon termination of the Executive's employment with the Company, the Executive's rights under any applicable benefit plans will be determined under the provisions of those plans.

(c) Death. The Executive's employment will terminate in the event of his death. The Company will have no obligation to pay or provide any compensation or benefits under this Agreement on account of the Executive's death, or for periods following the Executive's death, provided, that the Company's obligations under Section 10(a)(i) will not be interrupted as a result of the Executive's death. The Executive's rights under the benefit plans of the Company in the event of the Executive's death will be determined under the provisions of those plans.

(d) Cause. During the Employment Period, the Company may terminate the Executive's employment for cause by giving the Executive 10 days' advance notice in writing. For all purposes under this Agreement, "Cause" will mean (i) willful failure by the Executive to substantially perform his duties hereunder, (ii) a willful act by the Executive which constitutes gross misconduct and which is injurious to the Company, (iii) a willful breach by the Executive of a material provision of this Agreement, or (iv) a material and willful violation of a federal or state law or regulation applicable to the business of the Company. No act, or failure to act, by the Executive will be considered "willful" unless committed without a reasonable belief that the act or omission was in the Company's best interest. No compensation or benefits will be paid or provided to the Executive under this Agreement on account of a termination for Cause, or for periods following the date when such a termination of employment is effective. The Executive's rights under the benefit plans of the Company will be determined under the provisions of those plans.

(e) Disability. The Company may terminate the Executive's employment for Disability by giving the Executive 30 days' advance notice in writing. For all purposes under this Agreement, "Disability" will mean that the Executive, at the time notice is given, has been unable to substantially perform his duties under this Agreement for a period of not less than two consecutive months as the result of his incapacity due to physical or mental illness. In the

event that the Executive resumes the effective performance of substantially all of his duties hereunder before the termination of his employment under this Section 2(e) becomes effective, the notice of termination will automatically be deemed to have been revoked. No compensation or benefits will be paid or provided to the Executive under this Agreement on account of termination for Disability, or for periods following the date when such a termination of employment is effective. The Executive's rights under the benefit plans of the Company will be determined under the provisions of those plans.

(f) Good Reason. Employment with the Company may be regarded as having been constructively terminated by the Company, and the Executive may therefore terminate his employment for Good Reason and thereupon become entitled to the benefits of Section 10(a)(i) and 10(b) below, if, before the end of the Employment Period, one or more of the following events will occur (unless such event(s) applies generally to all senior management of the Company):

(i) a material reduction by the Company in the Salary (as defined in Section 4, below) of the Executive as in effect immediately prior to such reduction;

(ii) a material reduction by the Company in the kind or level of employee benefits to which the Executive is entitled immediately prior to such reduction with the result that the Executive's overall benefits package is significantly reduced;

(iii) the required relocation of the Executive to a facility or a location more than 25 miles from the Executive's then present location over Executive's written objection made within 30 days of such required relocation; (iv) any purported termination of the Executive's employment by the Company other than for death, Disability or for Cause, or any purported termination for which the grounds relied upon are not valid; or

(v) the failure of the Company to obtain the assumption of this Agreement or the Stock Option (as defined in Section 5) by any successor.

3. Place of Employment. The Executive's services will be performed at the Company's principal executive offices at 585 N. Mary Avenue, Sunnyvale, California. The parties acknowledge, however, that the Executive may be required to travel in connection with the performance of his duties hereunder.

4. Salary. For all services to be rendered by the Executive pursuant to this Agreement, the Company agrees to pay the Executive during the Employment Period a salary (the "Salary") at an monthly rate of not less than \$30,000. The Salary will be paid in periodic installments in accordance with the Company's regular payroll practices. The Company will be entitled to withhold, or cause to be withheld, from payment any amount of withholding taxes required by law with respect to payments made to Executive in connection with his employment hereunder.

5. Stock Option and Other Benefits .

(a) Stock Option. The Board of Directors has granted, as of August 19, 1998, the Executive as partial consideration for the performance of this Agreement a five year option (the "Stock Option") to purchase 100,000 shares of the Company's Common Stock (the "Option Shares") at the fair market value of the Common Stock of the Company on the date of grant, which is contingent upon a continuous employment or consulting relationship between Executive and the Company. Such fair market value is equal to the per share closing price for the Company's Common Stock on the National Association of Securities Dealers, National Market System on such date of grant as recorded in The Wall Street Journal. The Stock Option will vest as described in Section 5(b) below and will be subject to such other terms and conditions as are described in Section 5(c) below.

(b) Vesting. Option Shares will vest in equal monthly installments over the six-month period that begins as of the Effective Date and ends February 28, 1999.

(c) Option Provisions. The Stock Option will be granted under the 1993 Stock Option Plan (the "Stock Plan") and will be subject to the terms and conditions of the Stock Plan and form of option agreement.

6. Expenses. The Executive will be entitled to prompt reimbursement by the Company for all reasonable ordinary and necessary travel, entertainment, and other expenses incurred by the Executive during the Employment Period (in accordance with the policies and procedures established by the Company for its senior executive officers) in the performance of his duties and responsibilities under this Agreement; provided, that the Executive will properly account for such expenses in accordance with Company policies and procedures. The parties agree that for purposes of this Section, the Executive's air travel will be coach class domestically and business class internationally.

7. Other Benefits. During the Employment Period, the Company will reimburse Executive for the cost of maintaining his Stanford University benefits, in an amount not in excess of \$1,000 per month, plus the amount necessary to gross up that amount for applicable taxes to provide an amount equal to the cost of such benefits net of Executive's tax cost. The Executive will not be entitled to participate in any employee benefit plans or programs which cover health, dental and life insurance. Employee will participate in the other benefit programs of the Company. Executive will continue to vest those options received by Executive prior to the date hereof, as though this employment was continuous employment under these terms.

8. Vacations and Holidays. During the Employment Period, the Executive will be entitled to paid vacation which will accrue at the rate of one week per quarter and will also be entitled to Company holidays in accordance with the Company's policies.

9. Other Activities. During the Employment Period, the Executive will devote substantially all of his working time and efforts, during the Company's normal business hours to the business and affairs of the Company and its subsidiaries and to the diligent and faithful performance of the duties and responsibilities duly assigned to him pursuant to this Agreement, except for vacations, holidays and sickness. However, the Executive may devote a reasonable amount of his time to civic, community, or charitable activities, may continue his relationship with The Aerospace Corporation, Draper Laboratories, IntegriNautics Corporation and Stanford University (related to GPS activities) to the extent that such activities do not conflict with his duty of loyalty to the Company, and, with the prior written approval of the Board of Directors, to serve as a director of other corporations and to other types of business or public activities not expressly mentioned in this Section.

10. Termination Benefits. In the event the Executive's employment terminates prior to the end of the Employment Period, then the Executive will be entitled to receive severance and other benefits as follows:

- (a) Severance.

(i) Involuntary Termination. If the Company terminates the Executive's employment other than for death, Disability or Cause, or if the Executive terminates his employment for Good Reason, then, in lieu of any severance benefits to which the Executive may otherwise be entitled under any Company severance plan or program, the Executive will be entitled to payment of his Salary on the regular payroll periods of the Company until the end of the Employment Period or, if earlier, until a breach by the Executive of his obligations under Sections 11 (Proprietary Information) or 12 (Non-Solicit) hereof.

(ii) Other Termination. In the event the Executive's employment terminates for death, Disability or Cause, or the Employee resigns for other than Good Reason, then the Executive will only be entitled to receive any benefits accrued to date and as may then be established under the Company's existing benefit plans and policies at the time of such termination. The Executive will receive only that compensation provided for herein accrued for periods served prior to the termination of employment but will not be entitled to any additional amounts under this Agreement.

(b) Options. In the event the Executive's employment is terminated by the Company as described in Section 10(a)(i) above, then the Executive will continue to vest in the unvested portion of the Stock Option until February 28, 1999 (subject to the term of the Stock Option). If terminated as described in Section 10(a)(ii), such vesting will terminate as of the date of such termination.

(c) No Duty to Mitigate. The Executive will not be required to mitigate the amount of any payment contemplated by this Agreement (whether by seeking new employment or in any other manner).

11. Proprietary Information. During the Employment Period and thereafter, the Executive will not, without the prior written consent of the Board of Directors, disclose or use for any purpose (except in the course of his employment under this Agreement and in furtherance of the business of the Company or any of its affiliates or subsidiaries) any confidential information or proprietary data of the Company. As an express condition of the Executive's employment with the Company, the Executive agrees to execute confidentiality agreements as requested by the Company, including but not limited to the Company's form of Employment, Confidential Information, Invention Assignment, and Arbitration Agreement, which is attached hereto as Exhibit A and incorporated herein by reference.

12. Non-Solicit. The Executive covenants and agrees with the Company that during his employment with the Company and for a period expiring one year after the date of termination of such employment, he will not solicit any of the Company's then-current employees to terminate their employment with the Company or to become employed by any firm, company or other business enterprise with which the Executive may then be connected.

13. Noncompete.

(a) Scope. Executive agrees that during the period beginning on the Effective Date and continuing for the term of this Agreement, he will not enter into the employ of, or render services to, any firm, corporation, or organization in a capacity that gives him responsibility for that segment of such entity's business which derives more than 10% of its annual revenues from sales of products which directly compete with products which are offered by the Company during the term of the Employment Agreement and the Consultant Agreement; provided, however, that Executive may continue his relationship with Draper Labs, the Aerospace Corporation, IntegriNautics Corporation and Stanford University (related to GPS activities) and any other firm, corporation, or organization which the Board of Directors approves subject to the duty of loyalty to the Company.

(b) Geographic Area. The parties acknowledge that the business of the Company and its subsidiaries is international in scope. The parties agree that the geographical areas in which the restrictions provided for in this Agreement apply include all cities, counties and states of the United States of America. In addition, the parties agree that the geographical areas in which the restrictions provided for in this Agreement apply include all foreign nations outside the United States of America in which the Company or any of its subsidiaries engages in sales, or otherwise conducts business or selling efforts.

(c) Severability. The parties intend that the covenants contained in this Section be construed as a series of separate covenants, one for each county of each state of the United States and each nation. Except for geographic coverage, each such separate covenant will be deemed identical in terms of the covenants contained in this Agreement. If, in any judicial proceeding, a court will refuse to enforce any of the separate covenants (or any part thereof) deemed included in this Section, then such unenforceable covenant (or such part) will be deemed eliminated from this Section for the purpose of those proceedings to the extent necessary to permit the remaining separate covenants (or portions thereof) to be enforced. In the event that the provisions of this Section should ever be deemed to exceed the time or geographic limitations, or the scope of these covenants, as permitted by applicable law, then such provisions will be reformed to the maximum time or geographic limitations, as the case may be, permitted by applicable laws.

14. Right to Advice of Counsel. The Executive acknowledges that he has had the opportunity to fully review this Agreement and if he so chooses, to consult with counsel and is fully aware of his rights and obligations under this Agreement.

15. Successors. The Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company to assume the obligations of this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place. Failure of the Company to obtain such assumption agreement prior to the effectiveness of any such succession will entitle the Executive to the benefits described in Sections 10(a)(i) and 10(b) of this Agreement, subject to the terms and conditions therein.

16. Arbitration.



(a) Disputes. Except as provided in Section 16(c) below, the Company and the Executive agree that, to the extent permitted by applicable law, any dispute or controversy arising under or in connection with this Agreement will be settled exclusively by arbitration in San Jose, California, in accordance with the rules of the American Arbitration Association then in effect by an arbitrator selected by both parties within ten days after either party has notified the other in writing that it desires a dispute between them to be settled by arbitration. In the event the parties cannot agree on such arbitrator within such ten-day period, each party will select an arbitrator and inform the other party in writing of such arbitrator's name and address within five days after the end of such ten-day period and the two arbitrators so selected will select a third arbitrator within 15 days thereafter; provided, however, that in the event of a failure by either party to select an arbitrator and notify the other party of such selection within the time period provided above, the arbitrator selected by the other party will be the sole arbitrator of the dispute. The decision of the arbitrator or a majority of the panel of arbitrators will be binding upon the parties and judgment in accordance with that decision may be entered in any court having jurisdiction thereover. Punitive damages will not be awarded.

(b) Consent to Personal Jurisdiction. The arbitrator(s) will apply California law to the merits of any dispute or claim, without reference to conflicts of law rules. Executive hereby consents to the personal jurisdiction of the state and federal courts located in California for any action or proceeding arising from or relating to this Agreement or relating to any arbitration in which the parties are participants.

(c) Equitable Relief. The parties may apply to any court of competent jurisdiction for a temporary restraining order, preliminary injunction, or other interim or conservatory relief, as necessary, without breach of this arbitration agreement and without abridgment of the powers of the arbitrator.

(d) Acknowledgment. EXECUTIVE HAS READ AND UNDERSTANDS THIS AGREEMENT, WHICH DISCUSSES ARBITRATION. EXECUTIVE UNDERSTANDS THAT BY SIGNING THIS AGREEMENT, EXECUTIVE AGREES TO SUBMIT ANY CLAIMS ARISING OUT OF, RELATING TO, OR IN CONNECTION WITH THIS AGREEMENT, OR THE INTERPRETATION, VALIDITY, CONSTRUCTION, PERFORMANCE, BREACH OR TERMINATION THEREOF, TO BINDING ARBITRATION, EXCEPT AS PROVIDED IN SECTION 16(c), AND THAT THIS ARBITRATION CLAUSE CONSTITUTES A WAIVER OF EXECUTIVE'S RIGHT TO A JURY TRIAL AND RELATES TO THE RESOLUTION OF ALL DISPUTES RELATING TO ALL ASPECTS OF THE RELATIONSHIP BETWEEN THE PARTIES.

17. Absence of Conflict. The Executive represents and warrants that his employment by the Company as described herein will not conflict with and will not be constrained by any prior or other employment or consulting agreement or relationship.

18. Assignment. This Agreement and all rights under this Agreement will be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective personal or legal representatives, executors, administrators, heirs, distributees, devisees, legatees, successors and assigns. This Agreement is personal in nature, and neither of the parties to this Agreement will, without the written consent of the other, assign or transfer this Agreement or any right or obligation under this Agreement to any other person or entity; except that the rights and obligations of the Company under this Agreement may be assigned to a corporation which becomes the successor to the Company as the result of a merger or other corporate reorganization or sale of substantially all the assets to a successor which continues the business of the Company or any other subsidiary of the Company, provided, that such assignment will not relieve the Company of its obligations hereunder. If the Executive should die while any amounts are still payable to the Executive hereunder, all such amounts, unless otherwise provided herein, will be paid in accordance with the terms of this Agreement to the Executive's devisee, legatee, or other designee or, if there be no such designee, to the Executive's estate.

19. Notices. For purposes of this Agreement, notices and other communications provided for in this Agreement will be in writing and will be delivered personally or sent by United States certified mail, return receipt requested, postage prepaid, addressed as follows:

If to the Company: Trimble Navigation Limited  
585 N. Mary Avenue  
P.O. Box 3642  
Sunnyvale, CA 94088-3642  
Attn: Board of Directors

or to such other address or the attention of such other person as the recipient party has previously furnished to the other party in writing in accordance with this Section. Such notices or other communications will be effective upon delivery or, if earlier, three days after they have been mailed as provided above.

20. Integration. This Agreement, the Consulting Agreement and the Standby Consulting Agreement represent the entire agreement and understanding between the parties as to the subject matter hereof and supersede all prior agreements whether written or oral. No waiver, alteration, or modification of any of the provisions of this Agreement will be binding unless in writing and signed by the party against whom enforcement of the change or modification is sought.

21. Waiver. Failure or delay on the part of either party hereto to enforce any right, power, or privilege hereunder will not be deemed to constitute a waiver thereof. Additionally, a waiver by either party or a breach of any promise hereof by the other party will not operate as or be construed to constitute a waiver of any subsequent waiver by such other party.

22. Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

23. Applicable Law. This Agreement will be governed by and construed in accordance with the internal substantive laws, and not the choice of law rules, of the State of California.

24. Counterparts. This Agreement may be executed in counterparts, each of which will be deemed to be an original, and which together will constitute a single agreement.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year first above written.

EXECUTIVE:

/s/ Bradford W. Parkinson  
Dr. Bradford W. Parkinson

TRIMBLE NAVIGATION LIMITED:

By: /s/ Robert S. Cooper  
Name: Robert S. Cooper  
Title: Chairman



## EMPLOYMENT AGREEMENT

This Employment Agreement (this "Agreement") is entered into as of September 1, 1998 (the "Effective Date"), between Trimble Navigation Limited, a California corporation (the "Company"), and Dr. Robert S. Cooper (the "Executive").

WHEREAS, the Company desires to employ the Executive as of the Effective Date and the Executive desires to accept employment with the Company on the terms and conditions set forth below;

WHEREAS, simultaneously with the execution hereof, the Company and Consultant are entering a Standby Consulting Agreement (the "Standby Consulting Agreement");

NOW, THEREFORE, in consideration of the foregoing recital and the respective covenants and agreements of the parties contained in this document, the Company and the Executive agree as follows:

1. Employment and Duties. During the Employment Period (as defined in Section 2 below), the Executive will serve as Chairman of the Board of the Company which position will be deemed an executive officer position. The duties and responsibilities of the Executive will include the duties and responsibilities for the Executive's corporate offices and positions as set forth in the Company's bylaws from time to time in effect and such other duties and responsibilities as the board of directors of the Company (the "Board of Directors") may from time to time reasonably assign to the Executive, in all cases to be consistent with the Executive's corporate offices and positions. The Executive will perform faithfully the executive duties assigned to him to the best of his ability and in the best interests of the Company. Executive will continue to serve as a director of the Company without additional compensation.

2. Employment Period.

(a) Term. The employment period will begin upon the Effective Date and will continue thereafter until August 31, 1999 (the "Employment Period"), unless sooner terminated pursuant to the provisions of this Agreement. Thereafter, Executive's employment will be at will.

(b) Early Termination. The Company may terminate the Executive's employment prior to the end of the Employment Period by giving the Executive 30 days' advance notice in writing. If the Company terminates the Executive's employment prior to the end of the Employment Period for any reason other than Cause or Disability, both as defined below, or if the Executive terminates his employment for Good Reason, as defined below, the provisions of Sections 10(a)(i), 10(b) and 10(c) will apply. The Executive may terminate his employment prior to the end of the Employment Period by giving the Company 30 days' advance written notice. If the Executive terminates his employment prior to the end of the Employment Period other than for Good Reason, the provisions of Section 10(a)(ii) will apply. Upon termination of the Executive's employment with the Company, the Executive's rights under any applicable benefit plans will be determined under the provisions of those plans.

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(c) Death. The Executive's employment will terminate in the event of his death. The Company will have no obligation to pay or provide any compensation or benefits under this Agreement on account of the Executive's death, or for periods following the Executive's death, provided, that the Company's obligations under Section 10(a)(i) will not be interrupted as a result of the Executive's death. The Executive's rights under the benefit plans of the Company in the event of the Executive's death will be determined under the provisions of those plans.

(d) Cause. During the Employment Period, the Company may terminate the Executive's employment for cause by giving the Executive ten days' advance notice in writing. For all purposes under this Agreement, "Cause" will mean (i) willful failure by the Executive to substantially perform his duties hereunder, (ii) a willful act by the Executive which is injurious to the Company, (iii) a willful breach by the Executive of a material provision of this Agreement, or (iv) a material and willful violation of a federal or state law or regulation applicable to the business of the Company. No act, or failure to act, by the Executive will be considered "willful" unless committed without a reasonable belief that the act or omission was in the Company's best interest. No compensation or benefits will be paid or provided to the Executive under this Agreement on account of a termination for Cause, or for periods following the date when such a termination of employment is effective. The Executive's rights under the benefit plans of the Company will be determined under the provisions of those plans.

(e) Disability. The Company may terminate the Executive's employment for Disability by giving the Executive 30 days' advance notice in writing. For all purposes under this Agreement, "Disability" will mean that the Executive, at the time notice is given, has been unable to substantially perform his duties under this Agreement for a period of not less than two consecutive months as the result of his incapacity due to physical or mental illness. In the event that the Executive resumes the performance of substantially all of his duties hereunder before the termination of his employment under this Section 2(e) becomes effective, the notice of termination will automatically be deemed to have been revoked. No compensation or benefits will be paid or provided to the Executive under this Agreement on account of termination for Disability, or for periods following the date when such a termination of employment is effective. The Executive's rights under the benefit plans of the Company will be determined under the provisions of those plans.

(f) Good Reason. Employment with the Company may be regarded as having been constructively terminated by the Company, and the Executive may therefore terminate his employment for Good Reason and thereupon become entitled to the benefits of Sections 10(a)(i) and 10(b) below, if, before the end of the Employment Period, one or more of the following events will occur (unless such event(s) applies generally to all senior management of the Company):

(i) a material reduction by the Company in the Salary of the Executive as in effect immediately prior to such reduction;

(ii) any purported termination of the Executive's employment by the Company which is not effected for death, Disability or for Cause, or any purported termination for which the grounds relied upon are not valid; or

(iii) the failure of the Company to obtain the assumption of this Agreement or the Stock Option (as defined in Section 5) by any successor.

3. Place of Employment. The Executive's services will be performed at the Company's principal executive offices at 585 N. Mary Avenue, Sunnyvale, California. The parties acknowledge, however, that the Executive may be required to travel in connection with the performance of his duties hereunder.

4. Salary. For all services to be rendered by the Executive pursuant to this Agreement, the Company agrees to pay the Executive during the Employment Period a salary (the "Salary") at a monthly rate of not less than \$10,000. The Salary will be paid in periodic installments in accordance with the Company's regular payroll practices. The Company will be entitled to withhold, or cause to be withheld, from payment any amount of withholding taxes required by law with respect to payments made to Executive in connection with his employment hereunder.

5. Stock Option.

(a) Stock Option. Subject to the approval of the Board of Directors, the Company will grant the Executive a five year option (the "Stock Option") to purchase 60,000 shares of the Company's Common Stock (the "Option Shares") at the fair market value of the Common Stock of the Company on the Effective Date, which is contingent upon a continuous employment or consulting relationship between Executive and the Company. Such fair market value will be equal to the per share closing price for the Company's Common Stock on the National Association of Securities Dealers, National Market System on such date of grant as recorded in The Wall Street Journal. The Stock Option will vest as described in Section 5(b) and will be subject to such other terms and conditions as are described in Section 5(c).

(b) Vesting. Option Shares will vest monthly over the twelve-month period that begins as of the Effective Date and ends August 31, 1999.

(c) Option Provisions. The Stock Option will be granted under the 1993 Stock Option Plan (the "Stock Plan") and will be subject to the terms and conditions of the Stock Plan and form of option agreement.

6. Expenses. The Executive will be entitled to prompt reimbursement by the Company for all reasonable ordinary and necessary travel, entertainment, and other expenses incurred by the Executive during the Employment Period (in accordance with the policies and procedures established by the Company for its senior executive officers) in the performance of his duties and responsibilities under this Agreement; provided, that the Executive will properly account for such expenses in accordance with Company policies and procedures. The parties agree that for purposes of this Section, the Executive's air travel will be coach class domestically and business class internationally.

7. Other Benefits. During the Employment Period, the Executive will be entitled to participate in employee benefit plans or programs of the Company, if any, to the extent that his position, tenure, salary, age, health and other qualifications make him eligible to participate, subject to the rules and regulations applicable thereto.

8. Holidays. The Executive will be entitled to Company holidays in accordance with the Company's policies in effect from time to time for its senior executive officers.

9. Other Activities. The Executive will devote approximately one third of his working time and efforts during the Company's normal business hours to the business and affairs of the Company and its subsidiaries and to the diligent and faithful performance of the duties and responsibilities duly assigned to him pursuant to this Agreement. Executive will be free to commence and to continue his other business relationships without restriction other than with respect to his duty of loyalty to the Company.

10. Termination Benefits. In the event the Executive's employment terminates prior to the end of the Employment Period, then the Executive will be entitled to receive severance and other benefits as follows:

(a) Severance.

(i) Involuntary Termination. If the Company terminates the Executive's employment other than for death, Disability or Cause, or if the Executive terminates his employment for Good Reason, then, in lieu of any severance benefits to which the Executive may otherwise be entitled under any Company severance plan or program, the Executive will be entitled to payment of his Salary on the regular payroll periods of the Company until the end of the Employment Period or, if earlier, until a breach by the Executive of his obligations under Sections 11 (Proprietary Information) or 12 (Non-Solicit) hereof.

(ii) Other Termination. In the event the Executive's employment terminates for death, Disability or Cause, or the Employee resigns for other than Good Reason, then the Executive will be entitled to receive any benefits accrued to date only as may then be established under the Company's existing benefit plans and policies at the time of such termination. The Executive will receive only that compensation provided for herein accrued for periods served prior to the termination of employment but will not be entitled to any additional amounts under this Agreement.

(b) Options. In the event the Executive's employment is terminated by the Company as described in Section 10(a)(i) above, then the Executive will continue to vest in the unvested portion of the Stock Option until August 31, 1999 (subject to the term of the Stock Option). If terminated as described in Section 10(a)(ii), such vesting will terminate as of the date of such termination.

(c) No Duty to Mitigate. The Executive will not be required to mitigate the amount of any payment contemplated by this Agreement (whether by seeking new employment or in any other manner).



11. Proprietary Information. During the Employment Period and thereafter, the Executive will not, without the prior written consent of the Board of Directors, disclose or use for any purpose (except in the course of his employment under this Agreement and in furtherance of the business of the Company or any of its affiliates or subsidiaries) any confidential information or proprietary data of the Company. As an express condition of the Executive's employment with the Company, the Executive agrees to execute confidentiality agreements as requested by the Company, including but not limited to the Company's form of Employment, Confidential Information, Invention Assignment, and Arbitration Agreement, which is attached hereto as Exhibit A and incorporated herein by reference.

12. Non-Solicit. The Executive covenants and agrees with the Company that during his employment with the Company and for a period expiring one year after the date of termination of such employment, he will not solicit any of the Company's then-current employees to terminate their employment with the Company or to become employed by any firm, company or other business enterprise with which the Executive may then be connected.

13. Right to Advice of Counsel. The Executive acknowledges that he has had the opportunity to fully review this Agreement and if he so chooses, to consult with counsel and is fully aware of his rights and obligations under this Agreement.

14. Successors. The Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company to assume the obligations of this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place. Failure of the Company to obtain such assumption agreement prior to the effectiveness of any such succession will entitle the Executive to the benefits described in Sections 10(a)(i) and 10(b) of this Agreement, subject to the terms and conditions therein.

15. Arbitration.

(a) Disputes. Except as provided in Section 15(d) below, the Company and the Executive agree that, to the extent permitted by applicable law, any dispute or controversy arising under or in connection with this Agreement will be settled exclusively by arbitration in San Jose, California, in accordance with the rules of the American Arbitration Association then in effect by an arbitrator selected by both parties within ten days after either party has notified the other in writing that it desires a dispute between them to be settled by arbitration. In the event the parties cannot agree on such arbitrator within such ten-day period, each party will select an arbitrator and inform the other party in writing of such arbitrator's name and address within five days after the end of such ten-day period and the two arbitrators so selected will select a third arbitrator within 15 days thereafter; provided, however, that in the event of a failure by either party to select an arbitrator and notify the other party of such selection within the time period provided above, the arbitrator selected by the other party will be the sole arbitrator of the dispute. The decision of the arbitrator or a majority of the panel of arbitrators will be binding upon the parties and judgment in accordance with that decision may be entered in any court having jurisdiction thereover. Punitive damages will not be awarded.

(b) Consent to Personal Jurisdiction. The arbitrator(s) will apply California law to the merits of any dispute or claim, without reference to conflicts of law rules. Executive hereby consents to the personal jurisdiction of the state and federal courts located in California for any action or proceeding arising from or relating to this Agreement or relating to any arbitration in which the parties are participants.

(c) Equitable Relief. The parties may apply to any court of competent jurisdiction for a temporary restraining order, preliminary injunction, or other interim or conservatory relief, as necessary, without breach of this arbitration agreement and without abridgment of the powers of the arbitrator.

(d) Acknowledgment. EXECUTIVE HAS READ AND UNDERSTANDS THIS AGREEMENT, WHICH DISCUSSES ARBITRATION. EXECUTIVE UNDERSTANDS THAT BY SIGNING THIS AGREEMENT, EXECUTIVE AGREES TO SUBMIT ANY CLAIMS ARISING OUT OF, RELATING TO, OR IN CONNECTION WITH THIS AGREEMENT, OR THE INTERPRETATION, VALIDITY, CONSTRUCTION, PERFORMANCE, BREACH OR TERMINATION THEREOF, TO BINDING ARBITRATION, EXCEPT AS PROVIDED IN SECTION 15(c), AND THAT THIS ARBITRATION CLAUSE CONSTITUTES A WAIVER OF EXECUTIVE'S RIGHT TO A JURY TRIAL AND RELATES TO THE RESOLUTION OF ALL DISPUTES RELATING TO ALL ASPECTS OF THE RELATIONSHIP BETWEEN THE PARTIES.

16. Absence of Conflict. The Executive represents and warrants that his employment by the Company as described herein will not conflict with and will not be constrained by any prior or other employment or consulting agreement or relationship.

17. Assignment. This Agreement and all rights under this Agreement will be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective personal or legal representatives, executors, administrators, heirs, distributees, devisees, legatees, successors and assigns. This Agreement is personal in nature, and neither of the parties to this Agreement will, without the written consent of the other, assign or transfer this Agreement or any right or obligation under this Agreement to any other person or entity; except that the rights and obligations of the Company under this Agreement may be assigned to a corporation which becomes the successor to the Company as the result of a merger or other corporate reorganization or sale of substantially all the assets to a corporation which continues the business of the Company or any other subsidiary of the Company, provided, that such assignment will not relieve the Company of its obligations hereunder. If the Executive should die while any amounts are still payable to the Executive hereunder, all such amounts, unless otherwise provided herein, will be paid in accordance with the terms of this Agreement to the Executive's devisee, legatee, or other designee or, if there be no such designee, to the Executive's estate.

18. Notices. For purposes of this Agreement, notices and other communications provided for in this Agreement will be in writing and will be delivered personally or sent by United States certified mail, return receipt requested, postage prepaid, addressed as follows:

If to the Company: Trimble Navigation Limited  
585 N. Mary Avenue  
P.O. Box 3642  
Sunnyvale, CA 94088-3642  
Attn: Board of Directors

or to such other address or the attention of such other person as the recipient party has previously furnished to the other party in writing in accordance with this Section. Such notices or other communications will be effective upon delivery or, if earlier, three days after they have been mailed as provided above.

19. Integration. This Agreement and the Standby Consulting Agreement represent the entire agreement and understanding between the parties as to the subject matter hereof and supersede all prior agreements whether written or oral. No waiver, alteration, or modification of any of the provisions of this Agreement will be binding unless in writing and signed by the party against whom enforcement of the change or modification is sought.

20. Waiver. Failure or delay on the part of either party hereto to enforce any right, power, or privilege hereunder will not be deemed to constitute a waiver thereof. Additionally, a waiver by either party or a breach of any promise hereof by the other party will not operate as or be construed to constitute a waiver of any subsequent waiver by such other party.

21. Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

22. Applicable Law. This Agreement will be governed by and construed in accordance with the internal substantive laws, and not the choice of law rules, of the State of California.

23. Counterparts. This Agreement may be executed in counterparts, each of which will be deemed to be an original, and which together will constitute a single agreement.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year first above written.

EXECUTIVE:

/s/ Robert S. Cooper  
Dr. Robert S. Cooper

TRIMBLE NAVIGATION LIMITED:

By: /s/ Bradford W. Parkinson

Name: Bradford W. Parkinson

Title: President



## CONSULTING AGREEMENT

This Consulting Agreement (this "Agreement") is entered into as of September 1, 1998 (the "Effective Date") by and between Trimble Navigation Limited, a California corporation (the "Company"), and Dr. Bradford W. Parkinson ("Consultant").

WHEREAS, simultaneously with the execution hereof, the Company and Consultant are entering an Employment Agreement (the "Employment Agreement") and a Standby Consulting Agreement (the "Standby Consulting Agreement");

WHEREAS, the Company, immediately following the Employment Period (as defined in the Employment Agreement), desires to retain Consultant as an independent contractor to perform consulting services for the Company and Consultant is willing to perform such services, on terms set forth more fully below;

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. Services and Compensation

(a) Services. Consultant will devote approximately eight hours each week during the Company's normal business hours to the business and affairs of the Company and its subsidiaries and to the diligent and faithful performance of the duties and responsibilities duly assigned to him (the "Services") by the Chief Executive Officer of the Company.

(b) Compensation. The Company will pay Consultant \$6,000 per month during the term of this Agreement; provided, however, that in the event of Consultant's death or disability during the term of this Agreement, Consultant will not be entitled to receive such amount.

(c) Expenses. The Company will reimburse Consultant for all reasonable travel expenses incurred by Consultant in performing Services pursuant to this Agreement.

2. Confidentiality

(a) Definition. "Confidential Information" means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customers, customer lists, markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances or other business information disclosed by the Company either directly or indirectly in writing, orally or by drawings or inspection of parts or equipment.

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(b) Non-Use and Non-Disclosure. Consultant will not, during or subsequent to the term of this Agreement, use the Company's Confidential Information for any purpose whatsoever other than the performance of the Services on behalf of the Company or disclose the Company's Confidential Information to any third party. It is understood that such Confidential Information will remain the sole property of the Company. Consultant further agrees to take all reasonable precautions to prevent any unauthorized disclosure of such Confidential Information including, but not limited to, having each employee of Consultant, if any, with access to any Confidential Information, execute a nondisclosure agreement containing provisions in the Company's favor identical to Sections 2, 3 and 4 of this Agreement. Confidential Information does not include information which (i) is known to Consultant at the time of disclosure to Consultant by the Company as evidenced by written records of Consultant, (ii) has become publicly known and made generally available through no wrongful act of Consultant, or (iii) has been rightfully received by Consultant from a third party who is authorized to make such disclosure. Without the Company's prior written approval, Consultant will not directly or indirectly disclose to anyone the existence of this Agreement or the fact that Consultant has this arrangement with the Company.

(c) Former Employer's Confidential Information. Consultant agrees that Consultant will not improperly use or disclose any proprietary information or trade secrets of any former or current employer or other person or entity with which Consultant has an agreement or duty to keep in confidence information acquired by Consultant, if any, and that Consultant will not bring onto the premises of the Company any unpublished document or proprietary information belonging to such employer, person or entity unless consented to in writing by such employer, person or entity. Consultant will indemnify the Company and hold it harmless from and against all claims, liabilities, damages and expenses, including reasonable attorneys fees and costs of suit, arising out of or in connection with any violation or claimed violation of a third party's rights resulting in whole or in part from the Company's use of the work product of Consultant under this Agreement.

(d) Third Party Confidential Information. Consultant recognizes that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. Consultant agrees that Consultant owes the Company and such third parties, during the term of this Agreement and thereafter, a duty to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or

corporation or to use it except as necessary in carrying out the Services for the Company consistent with the Company's agreement with such third party.

(e) Return of Materials. Upon the termination of this Agreement, or upon Company's earlier request, Consultant will deliver to the Company all of the Company's property or Confidential Information that Consultant may have in Consultant's possession or control.

3. Ownership

(a) Assignment. Consultant agrees that all copyrightable material, notes, records, drawings, designs, inventions, improvements, developments, discoveries and trade secrets (collectively, "Inventions") conceived, made or discovered by Consultant, solely or in collaboration with others, during the period of this Agreement which relate in any manner to the business of the Company that Consultant may be directed to undertake, investigate or experiment with, or which Consultant may become associated with in work, investigation or experimentation in the line of business of Company in performing the Services hereunder, are the sole property of the Company. Consultant further agrees to assign (or cause to be assigned) and does hereby assign fully to the Company all Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto.

(b) Further Assurances. Consultant agrees to assist Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company will deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns and nominees the sole and exclusive right, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. Consultant further agrees that Consultant's obligation to execute or cause to be executed, when it is in Consultant's power to do so, any such instrument or papers will continue after the termination of this Agreement.

(c) Pre-Existing Materials. Consultant agrees that if in the course of performing the Services, Consultant incorporates into any Invention developed hereunder any invention, improvement, development, concept, discovery or other proprietary information owned by Consultant or in which Consultant has an interest, (i) Consultant will inform Company, in writing before incorporating such invention, improvement, development, concept, discovery or other proprietary information into any Invention and (ii) the Company is hereby granted and will have a nonexclusive, royalty-free, perpetual, irrevocable, worldwide license to make, have made, modify, use and sell such item as part of or in connection with such Invention. Consultant will not incorporate any invention, improvement, development, concept, discovery or other proprietary information owned by any third party into any Invention without Company's prior written permission.

(d) Attorney in Fact. Consultant agrees that if the Company is unable because of Consultant's unavailability, dissolution, mental or physical incapacity, or for any other reason, to secure Consultant's signature to apply for or to pursue any application for any United States or foreign patents or mask work or copyright registrations covering the Inventions assigned to the Company above, then Consultant hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Consultant's agent and attorney in fact, to act for and in Consultant's behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of patents, copyright and mask work registrations thereon with the same legal force and effect as if executed by Consultant.

4. Conflicting Obligations. Consultant certifies that Consultant has no outstanding agreement or obligation that is in conflict with any of the provisions of this Agreement, or that would preclude Consultant from complying with the provisions hereof, and further certifies that Consultant will not enter into any such conflicting agreement during the term of this Agreement.



5. Non-Solicit. The Consultant covenants and agrees with the Company that during his consultancy with the Company and for a period expiring one year after the date of termination of such consultancy, he will not solicit any of the Company's then-current employees to terminate their employment with the Company or to become employed by any other firm, company or other business enterprise with which the Consultant may then be connected.

6. Noncompete.

(1) Scope. Consultant agrees that during the period beginning on the Effective Date and continuing for the term of this Agreement, he will not enter into the employ of, or render services to, any firm, corporation, or organization in a capacity that gives him responsibility for that segment of such entity's business which derives more than 10% of its annual revenues from sales of products which directly compete with products which are offered by the Company during the term of the Employment Agreement and the Consultant Agreement; provided, however, that Executive may continue his relationship with Draper Labs, the Aerospace Corporation, IntegriNautics Corporation and Stanford University (related to GPS activities) and any other firm, corporation, or organization which the Board of Directors approves subject to the duty of loyalty to the Company.

(2) Geographic Area. The parties acknowledge that the business of the Company and its subsidiaries is international in scope. The parties agree that the geographical areas in which the restrictions provided for in this Agreement apply include all cities, counties and states of the United States of America. In addition, the parties agree that the geographical areas in which the restrictions provided for in this Agreement apply include all foreign nations outside the United States of America in which the Company or any of its subsidiaries engages in sales, or otherwise conducts business or selling efforts.

(3) Severability. The parties intend that the covenants contained in this Section be construed as a series of separate covenants, one for each county of each state of the United States and each nation. Except for geographic coverage, each such separate covenant will be deemed identical in terms of the covenants contained in this Agreement. If, in any judicial proceeding, a court will refuse to enforce any of the separate covenants (or any part thereof) deemed included in this Section, then such unenforceable covenant (or such part) will be deemed eliminated from this Section for the purpose of those proceedings to the extent necessary to permit the remaining separate covenants (or portions thereof) to be enforced. In the event that the provisions of this Section should ever be deemed to exceed the time or geographic limitations, or the scope of these covenants, as permitted by applicable law, then such provisions will be reformed to the maximum time or geographic limitations, as the case may be, permitted by applicable laws.

7. Term and Termination

(a) Term. This Agreement will commence on June 1, 1999 and will continue until the earlier of (i) June 1, 2002 or (ii) termination as provided below.

(b) Termination. The Company may terminate this Agreement immediately and without prior notice if Consultant refuses to or is unable to perform the Services or is in breach of any material provision of this Agreement.

(c) Survival. Upon such termination all rights and duties of the parties toward each other will cease except:

(i) that the Company will be obliged to pay, within 30 days of the effective date of termination, all amounts owing to Consultant for Services completed and accepted by the Company prior to the termination date and related expenses, if any, in accordance with the provisions of Section 1 (Services and Compensation) hereof; and

(ii) Sections 2 (Confidentiality), 3 (Ownership), 5 (Non-Solicit) and 8 (Independent Contractor) will survive termination of this Agreement.

8. Assignment. Neither this Agreement nor any right hereunder or interest herein may be assigned or transferred by Consultant without the express written consent of the Company.

9. Independent Contractor. It is the express intention of the parties that Consultant is an independent contractor. Nothing in this Agreement will in any way be construed to constitute Consultant as an agent, employee or representative of the Company, but Consultant will perform the Services hereunder as an independent contractor. Consultant acknowledges and agrees that Consultant is obligated to report as income all compensation received by Consultant pursuant to this Agreement, and Consultant agrees to and acknowledges the obligation to pay all self-employment and other taxes thereon. Consultant further agrees to indemnify and hold harmless the Company and its directors, officers, and employees from and against all taxes, losses, damages, liabilities, costs and expenses, including attorney's fees and other legal expenses, arising directly or indirectly from (i) any negligent, reckless or intentionally wrongful act of Consultant or Consultant's assistants, employees or agents, (ii) a determination by a court or agency that the Consultant is not an independent contractor, or (iii) any breach by the Consultant or Consultant's assistants, employees or agents of any of the covenants contained in this Agreement.

10. Benefits. Consultant acknowledges and agrees and it is the intent of the parties hereto that Consultant receive no Company-sponsored benefits from the Company either as a Consultant or employee. Such benefits include, but are not limited to, paid vacation, sick leave, medical insurance, and 401(k) participation. If Consultant is reclassified by a state or federal agency or court as an employee, Consultant will become a reclassified employee and will receive no benefits except those mandated by state or federal law, even if by the terms of the Company's benefit plans in effect at the time of such reclassification Consultant would otherwise be eligible for such benefits.

11. Arbitration and Equitable Relief

(a) Disputes. Except as provided in Section 11(c) below, the Company and the Consultant agree that, to the extent permitted by applicable law, any dispute or controversy arising under or in connection with this Agreement will be settled exclusively by arbitration in San Jose, California, in accordance with the rules of the American Arbitration Association then in effect by an arbitrator selected by both parties within ten days after either party has notified the other in writing that it desires a dispute between them to be settled by arbitration. In the event the parties cannot agree on such arbitrator within such ten-day period, each party will select an arbitrator and inform the other party in writing of such arbitrator's name and address within five days after the end of such ten-day period and the two arbitrators so selected will select a third arbitrator within 15 days thereafter; provided, however, that in the event of a failure by either party to select an arbitrator and notify the other party of such selection within the time period provided above, the arbitrator selected by the other party will be the sole arbitrator of the dispute. The decision of the arbitrator or a majority of the panel of arbitrators will be binding upon the parties and judgment in accordance with that decision may be entered in any court having jurisdiction thereover. Punitive damages will not be awarded.

(b) Consent to Personal Jurisdiction. The arbitrator(s) will apply California law to the merits of any dispute or claim, without reference to conflicts of law rules. Consultant hereby consents to the personal jurisdiction of the state and federal courts located in California for any action or proceeding arising from or relating to this Agreement or relating to any arbitration in which the parties are participants.

(c) Equitable Relief. The parties may apply to any court of competent jurisdiction for a temporary restraining order, preliminary injunction, or other interim or conservatory relief, as necessary, without breach of this arbitration agreement and without abridgment of the powers of the arbitrator.

(d) Acknowledgment. CONSULTANT HAS READ AND UNDERSTANDS THIS AGREEMENT, WHICH DISCUSSES ARBITRATION. CONSULTANT UNDERSTANDS THAT BY SIGNING THIS AGREEMENT, CONSULTANT AGREES TO SUBMIT ANY CLAIMS ARISING OUT OF, RELATING TO, OR IN CONNECTION WITH THIS AGREEMENT, OR THE INTERPRETATION, VALIDITY, CONSTRUCTION, PERFORMANCE, BREACH OR TERMINATION THEREOF, TO BINDING ARBITRATION, EXCEPT AS PROVIDED IN SECTION 11(c), AND THAT THIS ARBITRATION CLAUSE CONSTITUTES A WAIVER OF CONSULTANT'S RIGHT TO A JURY TRIAL AND RELATES TO THE RESOLUTION OF ALL DISPUTES RELATING TO ALL ASPECTS OF THE RELATIONSHIP BETWEEN THE PARTIES.

12. Governing Law. This Agreement will be governed by the internal substantive laws, but not the choice of law rules, of the State of California.

13. Entire Agreement. This Agreement, the Employment Agreement and the Standby Consulting Agreement represent the entire agreement and understanding between the parties as to the subject matter hereof and supersede all prior agreements whether written or oral. No waiver, alteration, or modification of any of the provisions of this Agreement will be binding unless in writing and signed by the party against whom enforcement of the change or modification is sought.

14. Attorney's Fees. In any court action at law or equity which is brought by one of the parties to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorney's fees, in addition to any other relief to which that party may be entitled.

15. Severability. The invalidity or unenforceability of any provision of this Agreement, or any terms thereof, will not affect the validity of this Agreement as a whole, which will at all times remain in full force and effect.

16. Counterparts. This Agreement may be executed in counterparts, each of which will be deemed an original, and which together will be a single instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

CONSULTANT: TRIMBLE NAVIGATION LIMITED

By:/s/ Bradford W. Parkinson  
Dr. Bradford W. Parkinson

By:/s/ Robert S. Cooper

Name: Robert S. Cooper

Title: Chairman

Address: 585 N. Mary Avenue  
P.O. Box 3642  
Sunnyvale, CA 94088-3642



## STANDBY CONSULTING AGREEMENT

This Standby Consulting Agreement (this "Agreement") is entered into as of September 1, 1998 (the "Effective Date") by and between Trimble Navigation Limited, a California corporation (the "Company"), and Dr. Bradford W. Parkinson ("Consultant").

WHEREAS, simultaneously with the execution hereof, the Company and Consultant are entering an Employment Agreement (the "Employment Agreement") and a Consulting Agreement (the "Consulting Agreement");

WHEREAS, the Company, immediately following the termination of Consultant's status as an employee under the Employment Agreement or as a consultant under the Consulting, the Company desires to retain the ability to use Consultant as an independent contractor to perform consulting services for the Company as the need for such services may arise from time to time and Consultant is willing to perform such services, on terms set forth more fully below;

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. Services and Compensation

(a) Services. Consultant will perform consulting services (the "Services") on as needed basis as determined by the Chief Executive Officer of the Company in consideration for \$1.00 per year.

(b) Compensation. The Company will pay Consultant on an hourly basis at a rate mutually determined by Consultant and the Chief Executive Officer of the Company at the time the Services are performed.

(c) Expenses. The Company will reimburse Consultant for all reasonable travel expenses incurred by Consultant in performing Services pursuant to this Agreement.

2. Confidentiality

(a) Definition. "Confidential Information" means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customers, customer lists, markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances or other business information disclosed by the Company either directly or indirectly in writing, orally or by drawings or inspection of parts or equipment.

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(b) Non-Use and Non-Disclosure. Consultant will not, during or subsequent to the term of this Agreement, use the Company's Confidential Information for any purpose whatsoever other than the performance of the Services on behalf of the Company or disclose the Company's Confidential Information to any third party. It is understood that such Confidential Information will remain the sole property of the Company. Consultant further agrees to take all reasonable precautions to prevent any unauthorized disclosure of such Confidential Information including, but not limited to, having each employee of Consultant, if any, with access to any Confidential Information, execute a nondisclosure agreement containing provisions in the Company's favor identical to Sections 2, 3 and 4 of this Agreement. Confidential Information does not include information which (i) is known to Consultant at the time of disclosure to Consultant by the Company as evidenced by written records of Consultant, (ii) has become publicly known and made generally available through no wrongful act of Consultant, or (iii) has been rightfully received by Consultant from a third party who is authorized to make such disclosure. Without the Company's prior written approval, Consultant will not directly or indirectly disclose to anyone the existence of this Agreement or the fact that Consultant has this arrangement with the Company.

(c) Former Employer's Confidential Information. Consultant agrees that Consultant will not improperly use or disclose any proprietary information or trade secrets of any former or current employer or other person or entity with which Consultant has an agreement or duty to keep in confidence information acquired by Consultant, if any, and that Consultant will not bring onto the premises of the Company any unpublished document or proprietary information belonging to such employer, person or entity unless consented to in writing by such employer, person or entity. Consultant will indemnify the Company and hold it harmless from and against all claims, liabilities, damages and expenses, including reasonable attorneys fees and costs of suit, arising out of or in connection with any violation or claimed violation of a third party's rights resulting in whole or in part from the Company's use of the work product of Consultant under this Agreement.

(d) Third Party Confidential Information. Consultant recognizes that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. Consultant agrees that Consultant owes the Company and such third parties, during the term of this Agreement and thereafter, a duty to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out the Services for the Company consistent with the Company's agreement with such third party.

(e) Return of Materials. Upon the termination of this Agreement, or upon Company's earlier request, Consultant will deliver to the Company all of the Company's property or Confidential Information that Consultant may have in Consultant's possession or control.

3. Ownership

(a) Assignment. Consultant agrees that all copyrightable material, notes, records, drawings, designs, inventions, improvements, developments, discoveries and trade secrets (collectively, "Inventions") conceived, made or discovered by Consultant, solely or in collaboration with others, during the period of this Agreement which relate in any manner to the business of the Company that Consultant may be directed to undertake, investigate or experiment with, or which Consultant may become associated with in work, investigation or experimentation in the line of business of Company in performing the Services hereunder, are the sole property of the Company. Consultant further agrees to assign (or cause to be assigned) and does hereby assign fully to the Company all Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto.

(b) Further Assurances. Consultant agrees to assist Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company will deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns and nominees the sole and exclusive right, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. Consultant further agrees that Consultant's obligation to execute or cause to be executed, when it is in Consultant's power to do so, any such instrument or papers will continue after the termination of this Agreement.

(c) Pre-Existing Materials. Consultant agrees that if in the course of performing the Services, Consultant incorporates into any Invention developed hereunder any invention, improvement, development, concept, discovery or other proprietary information owned by Consultant or in which Consultant has an interest, (i) Consultant will inform Company, in writing before incorporating such invention, improvement, development, concept, discovery or other proprietary information into any Invention and (ii) the Company is hereby granted and will have a nonexclusive, royalty-free, perpetual, irrevocable, worldwide license to make, have made, modify, use and sell such item as part of or in connection with such Invention. Consultant will not incorporate any invention, improvement, development, concept, discovery or other proprietary information owned by any third party into any Invention without Company's prior written permission.

(d) Attorney in Fact. Consultant agrees that if the Company is unable because of Consultant's unavailability, dissolution, mental or physical incapacity, or for any other reason, to secure Consultant's signature to apply for or to pursue any application for any United States or foreign patents or mask work or copyright registrations covering the Inventions assigned to the Company above, then Consultant hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Consultant's agent and attorney in fact, to act for and in Consultant's behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of patents, copyright and mask work registrations thereon with the same legal force and effect as if executed by Consultant.

4. Conflicting Obligations. Consultant certifies that Consultant has no outstanding agreement or obligation that is in conflict with any of the provisions of this Agreement, or that would preclude Consultant from complying with the provisions hereof, and further certifies that Consultant will not enter into any such conflicting agreement during the term of this Agreement.



5. Non-Solicit. The Consultant covenants and agrees with the Company that during his consultancy with the Company and for a period expiring one year after the date of termination of such consultancy, he will not solicit any of the Company's then-current employees to terminate their employment with the Company or to become employed by any other firm, company or other business enterprise with which the Consultant may then be connected.

6. Term and Termination

(a) Term. This Agreement will commence immediately following the termination of Consultant's status as an employee under the Employment Agreement or as a consultant under the Consulting Agreement (as defined in the Consulting Agreement) and will continue for a period of five years from the date of this Agreement.

(b) Termination. The Company may not terminate this Agreement unless Consultant is in breach of any material provision of this Agreement.

(c) Survival. Upon such termination all rights and duties of the parties toward each other will cease except:

(i) that the Company will be obliged to pay, within 30 days of the effective date of termination, all amounts owing to Consultant for Services completed and accepted by the Company prior to the termination date and related expenses, if any, in accordance with the provisions of Section 1 (Services and Compensation) hereof; and

(ii) Sections 2 (Confidentiality), 3 (Ownership), 5 (Non-Solicit) and 8 (Independent Contractor) will survive termination of this Agreement.

7. Assignment. Neither this Agreement nor any right hereunder or interest herein may be assigned or transferred by Consultant without the express written consent of the Company.

8. Independent Contractor. It is the express intention of the parties that Consultant is an independent contractor. Nothing in this Agreement will in any way be construed to constitute Consultant as an agent, employee or representative of the Company, but Consultant will perform the Services hereunder as an independent contractor. Consultant acknowledges and agrees that Consultant is obligated to report as income all compensation received by Consultant pursuant to this Agreement, and Consultant agrees to and acknowledges the obligation to pay all self-employment and other taxes thereon. Consultant further agrees to indemnify and hold harmless the Company and its directors, officers, and employees from and against all taxes, losses, damages, liabilities, costs and expenses, including attorney's fees and other legal expenses, arising directly or indirectly from (i) any negligent, reckless or intentionally wrongful act of Consultant or Consultant's assistants, employees or agents, (ii) a determination by a court or agency that the Consultant is not an independent contractor, or (iii) any breach by the Consultant or Consultant's assistants, employees or agents of any of the covenants contained in this Agreement.

9. Benefits. Consultant acknowledges and agrees and it is the intent of the parties hereto that Consultant receive no Company-sponsored benefits from the Company either as a Consultant or employee. Such benefits include, but are not limited to, paid vacation, sick leave, medical insurance, and 401(k) participation. If Consultant is reclassified by a state or federal agency or court as an employee, Consultant will become a reclassified employee and will receive no benefits except those mandated by state or federal law, even if by the terms of the Company's benefit plans in effect at the time of such reclassification Consultant would otherwise be eligible for such benefits.

10. Arbitration and Equitable Relief

(a) Disputes. Except as provided in Section 10(c) below, the Company and the Consultant agree that, to the extent permitted by applicable law, any dispute or controversy arising under or in connection with this Agreement will be settled exclusively by arbitration in San Jose, California, in accordance with the rules of the American Arbitration Association then in effect by an arbitrator selected by both parties within ten days after either party has notified the other in writing that it desires a dispute between them to be settled by arbitration. In the event the parties cannot agree on such arbitrator within such ten-day period, each party will select an arbitrator and inform the other party in writing of such arbitrator's name and address within five days after the end of such ten-day period and the two arbitrators so selected will select a third arbitrator within 15 days thereafter; provided, however, that in the event of a failure by either party to select an arbitrator and notify the other party of such selection within the time period provided above, the arbitrator selected by the other party will be the sole arbitrator of the dispute. The decision of the arbitrator or a majority of the panel of arbitrators will be binding upon the parties and judgment in accordance with that decision may be entered in any court having jurisdiction thereover. Punitive damages will not be awarded.

(b) Consent to Personal Jurisdiction. The arbitrator(s) will apply California law to the merits of any dispute or claim, without reference to conflicts of law rules. Consultant hereby consents to the personal jurisdiction of the state and federal courts located in California for any action or proceeding arising from or relating to this Agreement or relating to any arbitration in which the parties are participants.

(c) Equitable Relief. The parties may apply to any court of competent jurisdiction for a temporary restraining order, preliminary injunction, or other interim or conservatory relief, as necessary, without breach of this arbitration agreement and without abridgment of the powers of the arbitrator.

(d) Acknowledgment. CONSULTANT HAS READ AND UNDERSTANDS THIS AGREEMENT, WHICH DISCUSSES ARBITRATION. CONSULTANT UNDERSTANDS THAT BY SIGNING THIS AGREEMENT, CONSULTANT AGREES TO SUBMIT ANY CLAIMS ARISING OUT OF, RELATING TO, OR IN CONNECTION WITH THIS AGREEMENT, OR THE INTERPRETATION, VALIDITY, CONSTRUCTION, PERFORMANCE, BREACH OR TERMINATION THEREOF, TO BINDING ARBITRATION, EXCEPT AS PROVIDED IN SECTION 10(c), AND THAT THIS ARBITRATION CLAUSE CONSTITUTES A WAIVER OF CONSULTANT'S RIGHT TO A JURY TRIAL AND RELATES TO THE RESOLUTION OF ALL DISPUTES RELATING TO ALL ASPECTS OF THE RELATIONSHIP BETWEEN THE PARTIES.

11. Governing Law. This Agreement will be governed by the internal substantive laws, but not the choice of law rules, of the State of California.

12. Entire Agreement. This Agreement, the Employment Agreement and the Consulting Agreement represent the entire agreement and understanding between the parties as to the subject matter hereof and supersede all prior agreements whether written or oral. No waiver, alteration, or modification of any of the provisions of this Agreement will be binding unless in writing and signed by the party against whom enforcement of the change or modification is sought.

13. Attorney's Fees. In any court action at law or equity which is brought by one of the parties to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorney's fees, in addition to any other relief to which that party may be entitled.

14. Severability. The invalidity or unenforceability of any provision of this Agreement, or any terms thereof, will not affect the validity of this Agreement as a whole, which will at all times remain in full force and effect.

15. Counterparts. This Agreement may be executed in counterparts, each of which will be deemed an original, and which together will be a single instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

CONSULTANT:	TRIMBLE NAVIGATION LIMITED
By:/s/ Bradford W. Parkinson Dr. Bradford W. Parkinson	By: /s/ Robert S. Cooper Name: Robert S. Cooper Title: Chairman
	Address: 585 N. Mary Avenue P.O. Box 3642 Sunnyvale, CA 94088-3642



## STANDBY CONSULTING AGREEMENT

This Standby Consulting Agreement (this "Agreement") is entered into as of September 1, 1998 (the "Effective Date") by and between Trimble Navigation Limited, a California corporation (the "Company"), and Dr. Robert S. Cooper ("Consultant").

WHEREAS, simultaneously with the execution hereof, the Company and Consultant are entering an Employment Agreement (the "Employment Agreement");

WHEREAS, the Company, immediately following the termination of Consultant's status as an employee under the Employment Agreement, the Company desires to retain the ability to use Consultant as an independent contractor to perform consulting services for the Company as the need for such services may arise from time to time and Consultant is willing to perform such services, on terms set forth more fully below;

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. Services and Compensation

(a) Services. Consultant will perform consulting services (the "Services") on as needed basis as determined by the Chief Executive Officer of the Company in consideration for \$1.00 per year.

(b) Compensation. The Company will pay Consultant on an hourly basis at a rate mutually determined by Consultant and the Chief Executive Officer of the Company at the time the Services are performed.

(c) Expenses. The Company will reimburse Consultant for all reasonable travel expenses incurred by Consultant in performing Services pursuant to this Agreement.

2. Confidentiality

(a) Definition. "Confidential Information" means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customers, customer lists, markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances or other business information disclosed by the Company either directly or indirectly in writing, orally or by drawings or inspection of parts or equipment.

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(b) Non-Use and Non-Disclosure. Consultant will not, during or subsequent to the term of this Agreement, use the Company's Confidential Information for any purpose whatsoever other than the performance of the Services on behalf of the Company or disclose the Company's Confidential Information to any third party. It is understood that such Confidential Information will remain the sole property of the Company. Consultant further agrees to take all reasonable precautions to prevent any unauthorized disclosure of such Confidential Information including, but not limited to, having each employee of Consultant, if any, with access to any Confidential Information, execute a nondisclosure agreement containing provisions in the Company's favor identical to Sections 2, 3 and 4 of this Agreement. Confidential Information does not include information which (i) is known to Consultant at the time of disclosure to Consultant by the Company as evidenced by written records of Consultant, (ii) has become publicly known and made generally available through no wrongful act of Consultant, or (iii) has been rightfully received by Consultant from a third party who is authorized to make such disclosure. Without the Company's prior written approval, Consultant will not directly or indirectly disclose to anyone the existence of this Agreement or the fact that Consultant has this arrangement with the Company.

(c) Former Employer's Confidential Information. Consultant agrees that Consultant will not improperly use or disclose any proprietary information or trade secrets of any former or current employer or other person or entity with which Consultant has an agreement or duty to keep in confidence information acquired by Consultant, if any, and that Consultant will not bring onto the premises of the Company any unpublished document or proprietary information belonging to such employer, person or entity unless consented to in writing by such employer, person or entity. Consultant will indemnify the Company and hold it harmless from and against all claims, liabilities, damages and expenses, including reasonable attorneys fees and costs of suit, arising out of or in connection with any violation or claimed violation of a third party's rights resulting in whole or in part from the Company's use of the work product of Consultant under this Agreement.

(d) Third Party Confidential Information. Consultant recognizes that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. Consultant agrees that Consultant owes the Company and such third parties, during the term of this Agreement and thereafter, a duty to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out the Services for the Company consistent with the Company's agreement with such third party.

(e) Return of Materials. Upon the termination of this Agreement, or upon Company's earlier request, Consultant will deliver to the Company all of the Company's property or Confidential Information that Consultant may have in Consultant's possession or control.

3. Ownership

(a) Assignment. Consultant agrees that all copyrightable material, notes, records, drawings, designs, inventions, improvements, developments, discoveries and trade secrets (collectively, "Inventions") conceived, made or discovered by Consultant, solely or in collaboration with others, during the period of this Agreement which relate in any manner to the business of the Company that Consultant may be directed to undertake, investigate or experiment with, or which Consultant may become associated with in work, investigation or experimentation in the line of business of Company in performing the Services hereunder, are the sole property of the Company. Consultant further agrees to assign (or cause to be assigned) and does hereby assign fully to the Company all Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto.

(b) Further Assurances. Consultant agrees to assist Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company will deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns and nominees the sole and exclusive right, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. Consultant further agrees that Consultant's obligation to execute or cause to be executed, when it is in Consultant's power to do so, any such instrument or papers will continue after the termination of this Agreement.

(c) Pre-Existing Materials. Consultant agrees that if in the course of performing the Services, Consultant incorporates into any Invention developed hereunder any invention, improvement, development, concept, discovery or other proprietary information owned by Consultant or in which Consultant has an interest, (i) Consultant will inform Company, in writing before incorporating such invention, improvement, development, concept, discovery or other proprietary information into any Invention and (ii) the Company is hereby granted and will have a nonexclusive, royalty-free, perpetual, irrevocable, worldwide license to make, have made, modify, use and sell such item as part of or in connection with such Invention. Consultant will not incorporate any invention, improvement, development, concept, discovery or other proprietary information owned by any third party into any Invention without Company's prior written permission.

(d) Attorney in Fact. Consultant agrees that if the Company is unable because of Consultant's unavailability, dissolution, mental or physical incapacity, or for any other reason, to secure Consultant's signature to apply for or to pursue any application for any United States or foreign patents or mask work or copyright registrations covering the Inventions assigned to the Company above, then Consultant hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Consultant's agent and attorney in fact, to act for and in Consultant's behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of patents, copyright and mask work registrations thereon with the same legal force and effect as if executed by Consultant.

4. Conflicting Obligations. Consultant certifies that Consultant has no outstanding agreement or obligation that is in conflict with any of the provisions of this Agreement, or that would preclude Consultant from complying with the provisions hereof, and further certifies that Consultant will not enter into any such conflicting agreement during the term of this Agreement.

5. Non-Solicit. The Consultant covenants and agrees with the Company that during his consultancy with the Company and for a period expiring one year after the date of termination of such consultancy, he will not solicit any of the Company's then-current employees to terminate their employment with the Company or to become employed by any other firm, company or other business enterprise with which the Consultant may then be connected.

6. Term and Termination

(a) Term. This Agreement will commence immediately following the termination of Consultant's status as an employee under the Employment Agreement or as a consultant under the Consulting Agreement (as defined in the Consulting Agreement) and will continue for a period of five years from the date of this Agreement.

(b) Termination. The Company may not terminate this Agreement unless Consultant is in breach of any material provision of this Agreement.

(c) Survival. Upon such termination all rights and duties of the parties toward each other will cease except:

(i) that the Company will be obliged to pay, within 30 days of the effective date of termination, all amounts owing to Consultant for Services completed and accepted by the Company prior to the termination date and related expenses, if any, in accordance with the provisions of Section 1 (Services and Compensation) hereof; and

(ii) Sections 2 (Confidentiality), 3 (Ownership), 5 (Non-Solicit) and 8 (Independent Contractor) will survive termination of this Agreement.

7. Assignment. Neither this Agreement nor any right hereunder or interest herein may be assigned or transferred by Consultant without the express written consent of the Company.

8. Independent Contractor. It is the express intention of the parties that Consultant is an independent contractor. Nothing in this Agreement will in any way be construed to constitute Consultant as an agent, employee or representative of the Company, but Consultant will perform the Services hereunder as an independent contractor. Consultant acknowledges and agrees that Consultant is obligated to report as income all compensation received by Consultant pursuant to this Agreement, and Consultant agrees to and acknowledges the obligation to pay all self-employment and other taxes thereon. Consultant further agrees to indemnify and hold harmless the Company and its directors, officers, and employees from and against all taxes, losses, damages, liabilities, costs and expenses, including attorney's fees and other legal expenses, arising directly or indirectly from (i) any negligent, reckless or intentionally wrongful act of Consultant or Consultant's assistants, employees or agents, (ii) a determination by a court or agency that the Consultant is not an independent contractor, or (iii) any breach by the Consultant or Consultant's assistants, employees or agents of any of the covenants contained in this Agreement.



9. Benefits. Consultant acknowledges and agrees and it is the intent of the parties hereto that Consultant receive no Company-sponsored benefits from the Company either as a Consultant or employee. Such benefits include, but are not limited to, paid vacation, sick leave, medical insurance, and 401(k) participation. If Consultant is reclassified by a state or federal agency or court as an employee, Consultant will become a reclassified employee and will receive no benefits except those mandated by state or federal law, even if by the terms of the Company's benefit plans in effect at the time of such reclassification Consultant would otherwise be eligible for such benefits.

10. Arbitration and Equitable Relief

(a) Disputes. Except as provided in Section 10(c) below, the Company and the Consultant agree that, to the extent permitted by applicable law, any dispute or controversy arising under or in connection with this Agreement will be settled exclusively by arbitration in San Jose, California, in accordance with the rules of the American Arbitration Association then in effect by an arbitrator selected by both parties within ten days after either party has notified the other in writing that it desires a dispute between them to be settled by arbitration. In the event the parties cannot agree on such arbitrator within such ten-day period, each party will select an arbitrator and inform the other party in writing of such arbitrator's name and address within five days after the end of such ten-day period and the two arbitrators so selected will select a third arbitrator within 15 days thereafter; provided, however, that in the event of a failure by either party to select an arbitrator and notify the other party of such selection within the time period provided above, the arbitrator selected by the other party will be the sole arbitrator of the dispute. The decision of the arbitrator or a majority of the panel of arbitrators will be binding upon the parties and judgment in accordance with that decision may be entered in any court having jurisdiction thereover. Punitive damages will not be awarded.

(b) Consent to Personal Jurisdiction. The arbitrator(s) will apply California law to the merits of any dispute or claim, without reference to conflicts of law rules. Consultant hereby consents to the personal jurisdiction of the state and federal courts located in California for any action or proceeding arising from or relating to this Agreement or relating to any arbitration in which the parties are participants.

(c) Equitable Relief. The parties may apply to any court of competent jurisdiction for a temporary restraining order, preliminary injunction, or other interim or conservatory relief, as necessary, without breach of this arbitration agreement and without abridgment of the powers of the arbitrator.

(d) Acknowledgment. CONSULTANT HAS READ AND UNDERSTANDS THIS AGREEMENT, WHICH DISCUSSES ARBITRATION. CONSULTANT UNDERSTANDS THAT BY SIGNING THIS AGREEMENT, CONSULTANT AGREES TO SUBMIT ANY CLAIMS ARISING OUT OF, RELATING TO, OR IN CONNECTION WITH THIS AGREEMENT, OR THE INTERPRETATION, VALIDITY, CONSTRUCTION, PERFORMANCE, BREACH OR TERMINATION THEREOF, TO BINDING ARBITRATION, EXCEPT AS PROVIDED IN SECTION 10(c), AND THAT THIS ARBITRATION CLAUSE CONSTITUTES A WAIVER OF CONSULTANT'S RIGHT TO A JURY TRIAL AND RELATES TO THE RESOLUTION OF ALL DISPUTES RELATING TO ALL ASPECTS OF THE RELATIONSHIP BETWEEN THE PARTIES.

11. Governing Law. This Agreement will be governed by the internal substantive laws, but not the choice of law rules, of the State of California.

12. Entire Agreement. This Agreement and the Employment Agreement represent the entire agreement and understanding between the parties as to the subject matter hereof and supersede all prior agreements whether written or oral. No waiver, alteration, or modification of any of the provisions of this Agreement will be binding unless in writing and signed by the party against whom enforcement of the change or modification is sought.

13. Attorney's Fees. In any court action at law or equity which is brought by one of the parties to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorney's fees, in addition to any other relief to which that party may be entitled.

14. Severability. The invalidity or unenforceability of any provision of this Agreement, or any terms thereof, will not affect the validity of this Agreement as a whole, which will at all times remain in full force and effect.

15. Counterparts. This Agreement may be executed in counterparts, each of which will be deemed an original, and which together will be a single instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

CONSULTANT:

TRIMBLE NAVIGATION LIMITED

By: /s/ Robert S. Cooper  
Dr. Robert S. Cooper

By: Bradford W. Parkinson  
Name: Bradford W. Parkinson  
Title: President

Address: 585 N. Mary Avenue  
P.O. Box 3642  
Sunnyvale, CA 94088-3642



March 17, 1999

Mr. Steve Berglund

Subject: Revised offer of employment

Dear Steve:

The Board of Directors is pleased to extend to you this offer of employment to serve as Chief Executive Officer and to be appointed as a member of the board for Trimble Navigation Limited. We believe you are uniquely suited to the TNL position in light of your background and experience and the nature of our company's markets and opportunities.

Your base salary compensation would be \$33,333 per month, payable on the regular payroll period of the company, commencing on your first day of employment. The board offers a bonus opportunity of up to 50% of your compensation base, pro rata at the end of our 1999 fiscal year, with half of this amount guaranteed for 1999. For the year 2000, you will be eligible for a 50% bonus with criteria as negotiated with the board.

You would be awarded options to purchase 400,000 shares of stock which would vest 20% at the first anniversary and monthly thereafter for five years from the date of grant. The option exercise price would be the fair market value of the stock on your employment start date. We anticipate that your presence may have an impact on the stock price so that it might be wise for your employment start date to occur upon your date of agreement to serve as the CEO, which we would be required to announce immediately.

In the event of a Change of Control of the company (as defined on Exhibit A hereto), you would receive an additional 12 months of vesting of your shares. If the Change of Control occurred during your first 12 months of service, you would receive ratable vesting for the first year plus the year of accelerated vesting.

You are eligible for the Trimble Executive Non-qualified Deferred Compensation Plan. Under this plan, you may defer up to 100% of future salary and up to 100% of any future bonus. Details to be provided under separate cover.

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Trimble will assist you in your relocation to Sunnyvale. This will include:

- o Mortgage assistance: Recognizing the exceptional housing market in this area, we are willing to lend you, at your election, up to \$400,000, to be secured by a second deed of trust on the real property, at the lending rate at which the company borrows as adjusted from time to time, which loan would be forgiven ratably over a five-year period so long as you continue to be employed. If your employment relationship ends during that period, the remaining obligation would be due on the anniversary of such separation. We will add the yearly interest to your compensation.
- o Six months of interim housing at \$3,000/month.
- o Cost reimbursement for movement of household goods from your primary home to Sunnyvale, including up to two automobiles if required. Trimble will determine the carrier.
- o The reasonable cost of two house-hunting trips (5 days in length per trip) for you and your family, including transportation, lodging, and meals.
- o Provision for an automobile for two weeks, or until your shipped auto arrives, up to a maximum of four weeks. Payment of fuel will be your responsibility.
- o Reimbursement of reasonable travel, meals, and lodging incurred in travel by the most direct route, for you and your family, by rail, air or personal car to Sunnyvale. Receipts must be provided.
- o Storage for your household goods (excluding auto) for a maximum of 90 days, if required. o A relocation allowance of \$10,000 to offset miscellaneous expenses related to your relocation.
- o 165% of the cost of a real estate commission which you incur on the sale of your present principle residence within one year from your employment start date.

All relocation reimbursements and company paid expenses will be reflected on your W-2 tax form. As some expenses are considered tax deductible, we recommend that you consult with a tax consultant.

Upon an Involuntary Termination or a termination other than for "Cause" (as both terms are defined on Exhibit A) or as a result of your disability, the company would provide you with 12 months severance. The amount of the severance would be equal to your current base salary plus one half of your annual bonus accrued to the date of separation. If separation occurred prior to January 1, 2000, the "annual" bonus amount (accrued ratably from your start date to December 31, 1999) would be treated as fully guaranteed and thus would be equal to 25% of your base salary accrued to the date of separation and would be added to the severance payments ratably over the following 12 months. If separation occurred after December 31, 1999, the bonus amount would be calculated at the end of the fiscal year in which severance occurred and you would be paid an amount equal to one half of the pro-rated bonus amount based on the percentage of that year prior to separation.

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Trimble has an attractive benefits package for employees, including medical, dental, life, short and long-term disability insurance, and a Savings and Retirement Plan (401k) with a company match, and Employee Stock Purchase Plan. Details of other benefits, such as paid time off and holidays, will be given during your employee orientation.

The board members and I are enthusiastic in making this offer to you and believe that between inherent value of the company and your management skills there is the opportunity to achieve very substantial growth in the value of the shareholder investment.

Sincerely,

/s/ Bradford W. Parkinson  
Bradford W. Parkinson  
President and CEO

BWP:rb

I accept the above offer of employment and will begin work as an employee of Trimble Navigation Limited on March 17, 1999.

/s/ Steven W. Berglund  
Steve Berglund

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EXHIBIT A

Definition of Terms. The following terms referred to in this Letter shall have the following meanings:

"Cause" means (i) your being convicted of a felony, (ii) a willful act by you which constitutes gross misconduct and which is injurious to the Corporation and which is not cured by you within 30 days after written notice of such breach is given to you by the Board of Directors or (iii) continued and repeated refusals to abide by the reasonable directions of the board of directors.

"Change of Control" means the occurrence of any of the following events: (i) the direct or indirect sale, lease, exchange or other transfer of all or substantially all (50% or more) of the assets of the Corporation to any person or entity or group of persons or entities acting in concert as a partnership or other group (a "Group of Persons"), (ii) the merger, consolidation or other business combination of the Corporation with or into another corporation with the effect that the shareholders of the Corporation immediately before the merger, consolidation or other business combination, hold, immediately after any such transaction, 50% or less of the combined voting power of the then outstanding securities of the surviving corporation of such merger, consolidation or other business combination ordinarily (and apart from rights accruing under special circumstances) having the right to vote in the election of directors of such surviving entity, or (iii) a person or Group of Persons shall, as a result of a tender or exchange offer, open market purchases, privately negotiated purchases or otherwise, have become the beneficial owner (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) of securities of the Corporation representing 50% or more of the combined voting power of the then outstanding securities of such corporation ordinarily (and apart from rights accruing under special circumstances) having the right to vote in the election of directors.

"Involuntary Termination" means (i) without your consent, your assignment to any duties or the significant reduction of your duties, either of which is inconsistent with your position or title with the Corporation and responsibilities in effect immediately prior to such assignment, or your removal from such position and responsibility, or a reduction in your title; (ii) a greater than 10% reduction by the Corporation in your base compensation as in effect immediately prior to such reduction; provided, however, that such reduction shall not apply if substantially all executive officers of the Corporation agree to a similar reduction in base compensation; or (iii) any purported termination of you by the Corporation (other than a voluntary termination initiated by you) which is not effected for disability or for Cause.



TRIMBLE NAVIGATION LIMITED  
NONQUALIFIED DEFERRED COMPENSATION PLAN

PLAN AND TRUST AGREEMENT  
(EFFECTIVE FEBRUARY 10, 1994)

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TRIMBLE NAVIGATION LIMITED  
NONQUALIFIED DEFERRED COMPENSATION PLAN AND TRUST

THIS PLAN AND TRUST AGREEMENT, effective as of February 1, 1994 (the "Effective Date"), is made and entered into by and between Trimble Navigation Limited (the "Company"), acting on behalf of itself and any subsidiaries, and John H. Barnet as trustee (the "Trustee"). Throughout, Company shall include wherever relevant any entity that is directly or indirectly controlled by the Company or any entity in which the Company has a significant equity or investment interest, as determined by the Company.

RECITALS:

1.....The Company wishes to establish a supplemental employee retirement plan for the benefit of a select group of highly compensated employees designated by the Company, and in its sole discretion, as eligible executives ("Executives").

2.....The Company wishes to provide that the plan to be established under this plan or agreement shall be designated as the Trimble Navigation Limited Nonqualified Deferred Compensation Plan (the "Plan").

3.....The Company wishes to provide under the Plan for the payment of vested accrued benefits to the Executives and their beneficiary or beneficiaries ("Trust Beneficiaries").

4.....The Company wishes to provide under the Plan that the Company shall pay all of the accrued benefits from its general assets.

5.....The Company wishes to establish two irrevocable trusts (individually, a "Trust," and together, the "Trusts") to set aside contributions by the Company to meet its obligations under the Plan.

6.....The Company wishes to make contributions to the Trusts and that such contributions be held by the Trustee and invested, reinvested and distributed, all in accordance with the provisions of this Plan.

7.....The Company intends that amounts allocated to the Trusts and the earnings thereon shall be used by the Trustee to satisfy the liabilities of the Company under the Plan with respect to each Executive for whom an Account has been established and such utilization shall be in accordance with the procedures set forth herein.

8.....The Company intends that the Trusts be "grantor trusts" with the corpus and income of the Trusts treated as assets and income of the Company for federal and state income tax purposes.

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9.....The Company intends that the assets of the Trusts shall at all times be subject to the claims of the general creditors of the Company as provided in Article XI.

10.....The Company intends that the existence of the Trusts shall not alter the characterization of the Plan as "unfunded" for purposes of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and shall not be construed to provide income to the Executives under the Plan prior to actual payment of the vested accrued benefits thereunder.

NOW THEREFORE, the Company does hereby establish the Plan and Trusts as follows and does also hereby agree that the Plan and Trusts shall be structured, held and disposed of as follows:

#### ARTICLE I

##### PLAN ADMINISTRATION

A.....The Plan shall be administered by John H. Barnet (the "Administrator"). Subject to the provisions in the Plan and to the specific duties delegated by the Board of Directors to such Administrator, the Administrator shall be responsible for the general administration and interpretation of the Plan and for carrying out its provisions. The Administrator shall have such powers as may be necessary to discharge its duties hereunder, including, but not by way of limitation, the following powers and duties:

(1) discretionary authority to construe and interpret the terms of the Plan, and to determine eligibility and the amount, manner and time of payment of any benefits hereunder;

(2) to prescribe procedures to be followed by Executives for purposes of Plan participation and distribution of benefits; and

(3) to take such other action as may be necessary and appropriate for the proper administration of the Plan.

B.....The Administrator may adopt such rules, regulations and bylaws and may make such decisions as it deems necessary or desirable for the proper administration of the Plan. Any rule or decision that is not inconsistent with the provisions of the Plan shall be conclusive and binding upon all persons affected by it, and there shall be no appeal from any ruling by the Administrator that is within its authority, except as otherwise provided herein.

ARTICLE II

ELIGIBILITY, PARTICIPATION AND BENEFICIARY DESIGNATION

A.....Eligible Employees. The following categories of employees ("Eligible Employees") shall be eligible to participate in the Plan: (i) employees who are designated as eligible to participate on the attached Exhibit A to this Plan; and (ii) any other employee or category of employee that is designated by the Administrator as eligible to participate in the Plan. The Administrator reserves the right to modify the definition of eligible employee at any time. Any Eligible Employee who has commenced participation in the Plan shall be referred to in this Plan as an "Executive."

B.....Participation. Each Executive may elect to commence participation in the Plan by completing a Trimble Navigation Limited Nonqualified Deferred Compensation Plan Deferred Compensation Agreement ("Deferred Compensation Agreement") within 30 days following the Effective Date. Any individual who becomes an Eligible Employee after the Effective Date may participate in the Plan by filing a Deferred Compensation Agreement within 30 days following the date on which the Administrator gives such individual written notice that the individual is an Eligible Employee. Any Eligible Employee who does not execute a Deferred Compensation Agreement within the time periods described herein may nevertheless participate in the Plan commencing with Compensation paid in the next succeeding calendar year by filing an executed Deferred Compensation Agreement with the Administrator before the beginning of such calendar year.

C.....Beneficiary Designation. Each Executive, prior to entering the Plan, shall designate a beneficiary or beneficiaries to receive the remainder of any interest of the Executive under the Plan. An Executive may change his or her beneficiary designation at any time on written notice to the Administrator. Each beneficiary designation shall be in a form prescribed by the Administrator and will be effective only when filed with the Administrator during the Executive's lifetime. Each beneficiary designation filed with the Administrator will cancel all previously filed beneficiary designations. In the absence of a valid designation, or if no designated beneficiary survives the Executive, the Executive's interest shall be distributed to the Executive's estate.

ARTICLE III

PLAN CONTRIBUTIONS AND ALLOCATIONS

A.....Participant Deferrals. Each Executive participating in the Plan shall execute a Deferred Compensation Agreement authorizing the Company to withhold a percentage of the Executive's Compensation which would otherwise be paid to the Executive with respect to services rendered. Compensation shall be defined for purposes of the foregoing as the cash compensation payable to the Executive in connection with the Executive's services to the Company, including all amounts which an Executive elects to have the Company contribute on his behalf as a deferral contribution ("Compensation"). The deferral percentage is applied to Compensation after all other applicable payroll deductions have been applied. The Administrator may, in its discretion, establish in the Deferred Compensation Agreement minimum and maximum levels of bonus and non-bonus compensation that may be deferred pursuant to the Plan. Compensation deferrals made by an Executive under this Plan shall be held as an asset of the Company and the Company intends to deposit the amounts deferred into the Trusts.

B.....Election Changes. An Executive may, in such form as the Administrator may prescribe, discontinue deferral of future compensation at any time; however, no other modifications to the Deferred Compensation Agreement may be made prior to the commencement of the calendar year following written notification to the Company of any desired modifications. The Administrator has the power to establish uniform and nondiscriminatory rules and from time to time to modify or change such rules governing the manner and method by which Compensation deferral contributions shall be made, as well as the manner and method by which Compensation deferral contribution may be changed or discontinued temporarily or permanently. All Compensation deferral contributions shall be authorized by the Executive in writing, made by payroll deduction, deducted from the Executive's Compensation without reduction for any taxes or withholding (except to the extent required by law or the regulations) and paid over to the Trusts by the Company. Notwithstanding the foregoing, each Executive shall remain liable for any and all employment taxes owing with respect to such Executive's Compensation deferral contributions.

C.....Cessation of Eligible Status. In the event an Executive ceases to be an Eligible Employee while also a participant in the Plan, such employee may continue to make Compensation deferral contributions under the Plan through the end of the payroll period in which the employee ceases to be an Eligible Employee. Thereafter, such employee shall not make any further Compensation deferral contributions to the Plan unless or until he or she again meets the eligibility requirements of Article II above.

D.....Company Matching Contributions. As of the last day of each calendar year or such earlier time or times as the Administrator may determine, the Company may make matching contributions to the Trusts in such amount as the Board of Directors of the Company shall specify.

E.....Company Discretionary Contributions. The Company may, in its sole discretion, make discretionary contributions to the Accounts of one or more Executives at such times and in such amounts as the Board of Directors of the Company shall determine.

F.....Allocations. The Compensation deferral contributions and any Company contributions made under the Plan on behalf of an Executive shall be credited to the Executive's Account. The Administrator shall establish and maintain separate subaccounts as it determines to be necessary and appropriate for the proper administration of the Plan. Each Executive Account consists of the aggregate interest of the Executive under the Plan (and in the Trust Funds, as such term is defined in Article V), as reflected in the records maintained by the Company for such purposes.

ARTICLE IV

VESTING

A.....Compensation Deferral Contributions. The value of an Executive's Account attributable to Executives' Compensation deferral contributions shall always be fully vested and nonforfeitable.

B.....Company Contributions. The value of an Executive's Account attributable to any Company contributions pursuant to Article III.D and E shall vest in its entirety five (5) years after the date of the Company contribution to which such value relates, provided the Executive has remained in the continuous employ of the Company throughout such five-year period. If the Executive's employment with the Company terminates for any reason prior to the expiration of such five-year period, no portion of the Executive's Account attributable to Company contributions occurring within the preceding five-year period shall be considered vested for purposes of of this Plan. Upon termination of an Executive's employment with the Company for any reason, any portion of the Executive's Account that is not then vested (including allocable earnings, as determined by the Administrator), shall be forfeited.

ARTICLE V

TRUST FUND

A.....Trusts. The Company hereby establishes the Trusts with the Trustee, consisting of such sums of money and other property acceptable to the Trustee as from time to time shall be paid or delivered to the Trustee. All such money and other property, all investments and reinvestments made therewith or proceeds thereof and all earnings and profits thereon, less all payments and charges as authorized herein, shall constitute the "Trust Funds." The Trust Funds shall at all times be subject to the claims of general creditors of the Company as provided in Article XI.

B.....Grantor Trusts. The Trusts hereby established shall be irrevocable, but for the issuance by the Internal Revenue Service of unfavorable tax rulings on the status of the Trusts as grantor trusts. Subject to Article XI, assets of the Trusts shall be held for the exclusive purpose of providing vested accrued benefits to the Trust Beneficiaries and defraying expenses of the Trusts in accordance with the provisions of this Plan. No part of the income or corpus of the Trust Funds shall be recoverable by or for the Company prior to the termination of the Trusts and the satisfaction of all liabilities under the Plans.

C.....Assignment. No right or interest to receive accrued benefits from the Trusts may be assigned, sold, anticipated, ----- alienated or otherwise transferred by the Trust Beneficiaries.

D.....Trustee. The Trustee accepts the Trusts established under this Plan on the terms and subject to the provisions set forth herein, and it agrees to discharge and perform fully and faithfully all of the duties and obligations imposed upon it under this Plan.

E.....Trust Assets. The principal of the Trusts and any earnings thereon shall be held separate and apart from other funds of the Company and shall be used exclusively for the uses and purposes herein set forth. Neither the Trust Beneficiaries nor the Plan shall have any preferred claim on, or any beneficial ownership interest in, any assets of the Trusts prior to the time such assets are paid to a Trust Beneficiary as vested accrued benefits as provided in Article IX, and all rights created under the Plan and the Trusts under this Plan shall be mere unsecured, contractual rights of the Executives against the Company.

## ARTICLE VI

### GENERAL DUTIES OF THE ADMINISTRATOR AND THE TRUSTEE

A.....Administrator Duties. The Administrator will provide the Trustee with a copy of any future amendment to this Plan promptly upon its adoption. The Administrator may from time to time hire outside consultants, accountants, actuaries, legal counsel or recordkeepers to perform such tasks as the Administrator may from time to time determine.

B.....Trustee Duties. The Trustee shall manage, invest and reinvest the Trust Funds as provided in Article XII of this Plan. The Trustee shall collect the income on the Trust Funds, and make distributions therefrom, all as hereinafter provided.

C.....Company Contributions. While the Plan remains in effect, and prior to a Change in Control, as defined below, the Company shall make contributions to the Trust Funds at least once each quarter. The amount of any quarterly contributions shall be at the discretion the Company. At the close of each calendar year, the Company shall make additional contributions to the Trust Funds to the extent that previous contributions to the Trust Funds for the current calendar year are not equal to the total of the Compensation deferrals made by each Executive plus Company matching contributions and discretionary contributions, if any, accrued, as of the close of the current calendar year. The Trustee shall not be liable for any failure by the Company to provide contributions sufficient to pay all accrued benefits under the Plan in full in accordance with the terms of this Plan.

D.....Department of Labor Determination. In the event that any Executives are found to be ineligible, that is, not members of a select group of highly compensated employees, according to a determination made by the Department of Labor, the Administrator will take whatever steps it deems necessary, in its sole discretion to equitably protect the interests of the affected Executives.

ARTICLE VII

ALLOCATION OF TRUST INCOME OR LOSS

A.....Determination of Net Income. As of each Valuation Date (as defined in Article VII.D below), the Administrator shall determine the net income or loss of the Trust Funds based on a statement from the Trustee of the receipts and disbursements of the Trust Funds since the immediately preceding Valuation Date and of the fair market value of the Trust Funds as of the Valuation Date. If one or more separate investment funds have been established as provided in Article XII, each fund shall be valued separately on each Valuation Date and the net income or loss of each fund shall be allocated to each Account invested in such investment fund. In addition, self-directed accounts as defined under Article XII.B shall be valued according to Section C of this Article.

B.....Valuation. As of each Valuation Date and prior to any allocation of contributions and forfeitures to be made as of such date, the net income or loss of the Trust Funds since the immediately preceding Valuation Date, including net appreciation or depreciation and any expenses paid by the Trusts, shall be allocated to each Account in the ratio that the value, as of the immediately preceding Valuation Date of each such Account invested in the Trust Funds bears to the value, as of the immediately preceding Valuation Date, of all Accounts invested in the Trust Funds. If one or more separate investment funds have been established, the net income or loss of each fund shall be allocated to each Account invested in such investment fund in proportion to the value of each Account invested in such funds as of the immediately preceding Valuation Date. The Administrator shall adopt suitable procedures to establish a proportionate crediting of Trust income or loss to those portions of Accounts in the case of contributions or hardship withdrawals that have occurred in the interim period since the immediately preceding Valuation Date.

C.....Valuation of Segregated Accounts. The portion of any Executive's Account invested on a segregated basis as provided in Article XII shall be valued separately on each Valuation Date and the net income or loss allocated to such Account shall be based on the assets, including income, gain, loss and/or other change in value of the assets constituting such portion of the Account.

D.....Valuation Dates. The Trust Funds, any separate investment funds and any segregated account shall be valued as of the last day of each calendar year and as of any other date the Company directs the Trustee to value the Trust Funds, as provided in Article VII.E.

E.....Special Valuation Dates at Administrator Discretion. The Administrator may direct the Trustee to determine the fair market value of the Trust Funds and may make a determination of Trust income or loss as of any date other than the last day of a calendar year.

ARTICLE VIII

EXECUTIVES' ACCOUNTS

A.....Separate Accounts. The Administrator shall open and maintain a separate Account for each Executive. Each Executive's Account shall reflect the amounts allocated thereto and distributed therefrom and such other information as affects the value of such Account pursuant to this Plan. The Administrator may maintain records of Accounts to the nearest whole dollar.

B.....Statement of Accounts. As soon as practicable after the end of each calendar year the Administrator shall furnish to each Executive a statement of his Account, determined as of the end of such calendar year. Upon the discovery of any error or miscalculation in an Account, the Administrator shall correct it, to the extent correction is practically feasible; provided, however, that any such statement of Account shall be considered to reflect accurately the status of the Executive's Account for all purposes under the Plan unless, subject to any longer period required by ERISA, the Executive reports a discrepancy to the Administrator within six (6) months after receipt of the statement. The Administrator shall have no obligation to make adjustments to an Executive's Account for any discrepancy reported to the Administrator more than six (6) months after receipt of the statement, or for a discrepancy caused by the Executive's error. Statements to Executives are for reporting purposes only, and no allocation, valuation or statement shall vest any right or title in any part of the Trust Funds, nor require any segregation of Trust assets, except as is specifically provided in this Plan.

C.....Accounts Which Are Not Segregated. When employment is terminated and payment is not deferred, the amount of the payment shall be based on the value of the vested portion of the Executive's Account as of the Valuation Date immediately preceding his termination date plus any contribution subsequently credited to such Account and less any distributions subsequently made from the Account.

D.....Segregated Accounts. Payment to an Executive shall be based on the value of the vested portion of the Executive's segregated Account at the date of distribution. The value of his or her segregated Account shall be the current fair market value, including any income or loss, of the property constituting such segregated Account.

ARTICLE IX

PAYMENTS TO A TRUST BENEFICIARY

A.....General. Payments of vested accrued benefits to Trust Beneficiaries from the Trust Funds shall be made in accordance with the Deferred Compensation Agreement between the Company and the Executive; provided, however, the Trustee shall make such payments, as directed by the Administrator, only to the extent the Company is not at such time Insolvent as defined in Article XI. Except as otherwise expressly provided in the Executive's Deferred Compensation Agreement, no distribution shall be made or commenced prior to the Executive's termination of employment or death, or a "Change of Control," whichever occurs earlier. An Executive who makes an Early Distribution Election (as defined in the Deferred Compensation Agreement) may, at least one year prior to the distribution date specified in such Early Distribution Election, revoke such Election in favor of a subsequent distribution date; provided that an Executive may revoke an Early Distribution election once only. For purposes of this Plan, a "Change in Control" shall be deemed to have occurred if any person (including a "Group" as such term is used in Section 13(d)(3) of the Securities Exchange Act of 1934, as amended) acquires shares of the Company either (i) having a majority of the total number of votes that may be cast for the election of directors of the Company or (ii) possessing, directly or indirectly, the power to control the direction of management or policies of the Company; provided, however, that no Change of Control shall be deemed to occur in the event of a merger, consolidation or reorganization of the Company where the shareholders of the Company immediately prior to such merger, consolidation or reorganization own greater than 50% of the outstanding shares of the Company immediately after such merger, consolidation or reorganization. The Trustee shall have no responsibility to determine whether a Change in Control has occurred and shall be advised of such event by the Company.

B.....Cash Distributions. Where the distribution of all or any portion of an Executive's Account is to be deferred in the form of cash, the Account shall continue to be held and invested in the Trusts subject to revaluation as provided in Article VII.

C.....In Kind Distributions. In kind distributions shall be (i) made only in a form of investment that was held on behalf of the Executive as a segregated investment pursuant to Article XII.B in a separate investment fund pursuant to Article XII.D immediately preceding the date of distribution, (ii) limited to the amount of such investment so held, and (iii) based on the fair market value of the distributable property, as determined by the Trustee at the time of distribution.

D.....Method of Distribution. Payment to any Trust Beneficiary shall be made pursuant to the Deferred Compensation Agreement executed by the Executive, in whole or in part. A Trust Beneficiary may specify, at least ninety (90) days prior to the commencement of any distribution, whether such distribution shall be made in a lump sum or in installments.

(1) In a lump sum, in cash and/or in kind, or

(2) In annual installments equal to  $1/n$  of the Executive's vested accrued benefit where  $n$  is the number of installments remaining to be paid.



E.....Certain Distributions. In case of any distribution to a minor or to a legally incompetent person, the Administrator may (1) direct the Trustee to make the distribution to his legal representative, to a designated relative, or directly to such person for his benefit, or (2) instruct the Trustee to use the distribution directly for his support, maintenance, or education. The Trustee shall not be required to oversee the application, by any third party, of any distributions made pursuant to this Article IX.E.

F.....IRS Determination. Notwithstanding any other provisions of this Plan, if any amounts held in either Trust are found in a "determination" (within the meaning of Section 1313(a) of the Internal Revenue Code of 1986, as amended (the "Code")) to have been includible in the gross income of any Trust Beneficiary prior to payment of such amounts from such Trust, the Trustee shall as soon as practicable pay such amounts to the Trust Beneficiary, as directed by the Company. For purposes of this Section, the Trustee shall be entitled to written notice from the Administrator that a determination described in the preceding sentence has occurred and to receive a copy of such notice. The Trustee shall have no responsibility until so advised by the Administrator.

G.....Limitation on Distributions. Notwithstanding any other provision of this Plan, the Trustee shall limit each distribution to each "covered employee" (as such term is defined in Section 162(m) of the Code) of the Company at the time of each such distribution, such that the sum of (i) the distributions made to such covered employee and (ii) the other "applicable employee remuneration" (as such term is defined in Section 162(m) of the Code) paid to such covered employee, during the fiscal year in which such distribution is made, does not exceed \$1,000,000.

## ARTICLE X

### HARDSHIP WITHDRAWALS

A.....General Rule. At the request of an Executive, the Administrator shall authorize a withdrawal at any time of the accrued benefit attributable to the Executive's Compensation deferrals and gains or losses thereon under the Executive's Account, provided that authorization for such withdrawal and the amount thereof shall be given only on account of an unforeseeable emergency. The term "unforeseeable emergency" shall mean severe financial hardship to the Executive resulting from a sudden and unexpected illness or accident of the Executive or of a dependent (as defined in Internal Revenue Code section 152(a)) of the Executive, loss of the Executive's property due to casualty, or other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Executive. The circumstances that will constitute an unforeseeable emergency will depend upon the facts of each case, but in any case, payment may not be made to the extent that such hardship is or may be relieved --

(1) through reimbursement or compensation by insurance or otherwise,

(2) By liquidation of the Executive's assets, to the extent the liquidation of such assets would not itself cause severe financial hardship, or

(3) By cessation of deferrals under the Plan.

The Administrator shall establish reasonable procedures and guidelines uniformly applied, to determine whether an unforeseeable emergency exists; provided, however, that no withdrawal request shall be granted if to do so could result in the inclusion of Trust Funds amounts in the gross income of Trust Beneficiaries prior to payment of such amounts from the Trust Funds because approval of such request would be inconsistent with any applicable statute, regulation, notice, ruling or other pronouncement of the Internal Revenue Service interpreting this or similar provisions.

#### ARTICLE XI

##### TRUSTEE RESPONSIBILITY REGARDING PAYMENTS TO TRUST BENEFICIARIES WHEN COMPANY INSOLVENT

A.....Company Insolvency. The Company shall be considered "Insolvent" and an "Insolvency" shall be deemed to exist for purposes of this Plan under any of the following circumstances:

- (1) The Company is unable to pay its debts as they mature, defined as having a weighted average overdue payables balance in excess of 270 days.
- (2) A receiver or trustee is appointed to take possession of all or substantially all of the assets of the Company.
- (3) There is a general assignment by the Company for the benefit of creditors.
- (4) An action or proceeding is commenced by or against the Company under any insolvency or bankruptcy act, or any other statute or regulation having as its purpose the protection of creditors, and the action or proceeding is not discharged within 60 days after the date of commencement.

B.....Plan Suspension. Notwithstanding any provision in this Plan to the contrary, if at any time while either Trust is still in existence the Company becomes Insolvent, the Trustee shall upon written notice thereof suspend the payment of all amounts from the existing Trust Funds and shall thereafter (i) not permit any further elective Compensation deferral contributions by the Executives and (ii) discontinue all contributions by the Company to the existing Trusts on behalf of the Executives. The Trustee shall hold the existing Trust Funds in suspense for the benefit of the Company's creditors until it receives a court order directing the disposition of the existing Trust Funds; provided, however, that the Trustee may deduct or continue to deduct its fees and expenses, including fees of any consultants, actuaries, accountants, legal counsel or recordkeepers retained by the Company or Trustee to provide services to the Trusts.

C.....Notice of Insolvency. By its approval and execution of this Plan, the Company represents and agrees that its Board of Directors, the Administrator, and its Chief Executive Officer, as from time to time acting, shall have the fiduciary duty and responsibility on behalf of the Company's creditors to give to the Trustee prompt written notice of the Company's Insolvency and the Trustee shall be entitled to rely thereon to the exclusion of all directions or claims to pay vested accrued benefits thereafter made. Absent such notice, the Trustee shall have no responsibility for determining whether or not the Company has become Insolvent.

D.....If after being Insolvent, the Company later becomes solvent without the entry of a court order concerning the disposition of the Trust Funds, or if any bankruptcy or insolvency proceedings referred to in Article XI.A are dismissed, the Company shall by written notice so inform the Trustee and the Trustee shall thereupon resume all its duties and responsibilities under this Plan without regard to this Article XI until and unless the Company again becomes Insolvent as such term is defined herein.

E.....If the Trustee discontinues payments from the Trusts pursuant to this Article XI and subsequently resumes payments, or removes the suspended status of the Trusts, interest will be added to the Accounts of all Executives, including those Accounts from which a payment was held in suspense, for the period of discontinuance at not less than the average rate on 90-Day Treasury Bills auctioned during the period of discontinuance, to be determined and calculated by the Company. The Company will not make any other contributions to the Trusts that otherwise would have been made during the period of discontinuance.

## ARTICLE XII

### INVESTMENT AND ADMINISTRATION OF TRUST FUND

A.....Investments. The Trustee shall have the power:

- (1) To invest and reinvest the Trust Funds; provided, however, the Trustee may delegate this investment authority, in whole or in part, and subject to such terms and conditions and as the Trustee shall require, to the Administrator, an Investment Manager who meets the requirements of Section 3(38) of ERISA, and, in accordance with Sections B through F below, Executives participating in the Plan (with respect to their own account), and provided further than in no event shall the Trust Funds be invested in securities of Trimble Navigation Limited;
- (2) To collect and receive any and all money and other property due to the Trust Funds and to give full discharge therefore;

- (3) To settle, compromise or submit to arbitration any claims, debts or damages due or owing to or from the Trusts; to commence or defend suits or legal proceedings to protect any interest of the Trusts; and to represent the Trusts in all suits or legal proceedings in any court or before any other body or tribunal;
- (4) Generally to do all acts, whether or not expressly authorized, which the Trustee may deem necessary or desirable for the protection of the Trust Funds.

Persons dealing with the Trustee shall be under no obligation to see to the proper application of any money paid or property delivered to the Trustee or to inquire into the Trustee's authority as to any transaction.

B.....Segregated Investments - Participant Direction Permitted. Subject to the provisions of Article XII.A. and at the discretion of the Administrator, Executives may be permitted to direct the Trustee in writing regarding the investment of funds in their Accounts, in a manner and form prescribed by the Administrator; provided, however, that such right to direct shall apply on a nondiscriminatory basis to all Executives who meet the requirements established by the Administrator. Such directed investment Accounts shall be segregated and shall be valued separately by the Trustee under the provisions of Article VII.C. Valuations of such Accounts shall be made at such times as the Administrator may require, but no less frequently than annually. In no event, for valuation purposes, shall the property constituting such segregated Accounts, or the net income or loss thereon, be commingled with other Executives' Accounts. Such segregated Accounts may be charged with their proportionate share of any general expenses charged to the Trusts or with the full share of any expense incurred directly or indirectly in connection with such Accounts.

C.....Participant Direction Subject to Administrator and Trustee Approval. Neither the Administrator nor the Trustee shall be under any obligation to approve or disapprove any specific investment medium. Neither the Company nor the Trustee has any liability for any losses or damage that may occur or result from (i) the approval of or failure to approve of any specific investment medium; (ii) the imposition of any administrative rules relating to the timing of investment elections of any sort; or (iii) any administrative delay in carrying out or failure to carry out investment elections within a specified time. The Administrator or the Trustee may disapprove or refuse to carry out any investment directions which in its opinion would subject the Company or the Trustee to burdensome administrative responsibilities or which the Administrator determines to be inappropriate from a legal, financial or social perspective. Prior to carrying out any investment direction of an Executive, the Trustee may require releases or any other documents, agreements or indemnifications as it may consider necessary. The Trustee, in approving any investment medium or in making investments under this Plan, shall not be restricted by statutes governing the legal investment of trust funds.

D.....Separate Investment Funds - Administrator May Establish Separate Funds. The Administrator may, in its sole discretion, direct the Trustee to create one or more separate investment funds, having such different specific investment objectives as the Administrator shall from time to time determine. The Administrator shall determine and may from time to time redetermine the number of investment funds and the specific objectives of said funds and the investments or kinds of investment which shall be authorized therefor.

Each Participant has the right to instruct the Administrator to direct the Trustee in writing to invest his Account in one or more separate investment funds, or in a directed investment, provided, however, that if any Executive fails to make a direction pursuant to this Article as to all or any part of such Account, the undirected portion of an Executive's Account shall be invested by the Trustee.

E.....Administrator To Establish Rules. The Administrator may at any time make such uniform and nondiscriminatory rules as it determines necessary regarding the administration of the directed investment option. The Administrator may also develop and maintain rules governing the rights of Executives to change their investment directions and the frequency with which such changes can be made.

### ARTICLE XIII

#### ACCOUNTING BY TRUSTEE

The Trustee shall keep accurate and detailed records of all investments, receipts, disbursements, and all other transactions required to be done, including such specific records as shall be agreed upon in writing between the Administrator and the Trustee. All such accounts, books and records shall be open to inspection and audit at all reasonable times by the Administrator, the Administrator's representatives or agents. Within one hundred and twenty (120) days following the close of each calendar quarter and within one hundred and twenty (120) days after the removal or resignation of the Trustee, the Trustee shall deliver to the Administrator a written account of its administration of the Trusts during such quarter or during the period from the close of the last preceding quarter to the date of such removal or resignation, setting forth all investments, receipts, disbursements and other actions effected by it, including a description of all securities and investments purchased and sold, with the cost or net proceeds of such purchases or sales (accrued interest paid or receivable being shown separately), and showing all cash, securities and other property held in the Trusts at the end of such quarter or as of the date of such removal or resignation, as the case may be. The written approval of any accounting by the Administrator shall be final as to all matters and transactions stated or shown therein and binding upon the Administrator and all persons who then shall be or then after shall become interested in the Trusts. Failure of the Administrator to notify the Trustee within 180 days after receipt of any accounting of its disapproval of such accounting shall be the equivalent of written approval.

ARTICLE XIV

RESPONSIBILITY OF TRUSTEE

The Trustee shall act with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use; provided, however, that the Trustee shall incur no liability to anyone for any action taken pursuant to a direction, request or approval given by the Administrator or any Executive which is contemplated by and complies with the terms of this Trust Agreement, and to that extent the Trustee shall be relieved of the prudent person rule for investments. The Trustee may hire agents, accountants, actuaries recordkeepers and financial consultants. Expenses of such persons shall be deemed to be expenses of management and administration of the Trusts within the meaning of Article XV.D, below. The Trustee shall have, without exclusion, all powers conferred on Trustees by applicable law unless expressly provided otherwise herein.

ARTICLE XV

TAXES, EXPENSES AND COMPENSATION OF TRUSTEE

A.....Company Assets. It is the intention of the Company to have the corpus and income of the Trusts established hereunder treated as assets and income of the Company to be used to satisfy the Company's legal liability under the Plan in respect of all of the Executives, and the Company agrees that all income, deductions and credits of the Trust Funds belong to the Company as owner for income tax purposes and will be included on the Company's income tax returns.

B.....Taxes. The Company shall from time to time pay taxes (references in this Plan to the payment of taxes shall include interest and applicable penalties) of any and all kinds whatsoever which at any time are lawfully levied or upon or become payable in respect of the Trust Funds, the income or any property forming a part thereof, or any security transaction pertaining thereto. To the extent that any taxes levied or assessed upon the Trust Funds are not paid by the Company or contested by the Company pursuant to the last sentence of this Article, the Trustee shall pay such taxes out of the Trust Funds, and the Company shall, upon demand by the Trustee, deposit into the Trust Funds an amount equal to the amount paid from the Trust Funds to satisfy such tax liability. If requested by the Company, the Trustee shall at the Company's expense, contest the validity of such taxes in any manner deemed appropriate by the Company or its counsel, but only if it has received an indemnity bond or other security satisfactory to it to pay any expenses of such contest. Alternatively, the Company may itself contest the validity of any such taxes, but any such contest shall not affect the Company's obligation to reimburse the Trust Funds for taxes paid from the Trust Funds.

C.....Withholding. In making payments from the Trusts, the Trustee shall be liable for federal income tax withholding, and shall withhold the appropriate amount of tax, if any, as provided by applicable law and regulation, from any payment made to a Trust Beneficiary, unless the Company does not provide the Trustee with the necessary information as set forth in regulations, in which case the Company shall assume all relevant liability.

D.....Compensation; Expenses. The Trustee may be paid compensation by the Company in accordance with any written agreement for this purpose between them; provided, however, that a Trustee who is an officer, director or employee of the Company shall serve without compensation. The Trustee shall be reimbursed by the Company for its reasonable expenses of management and administration of the Trusts, including reasonable compensation of any agent engaged by the Trustee to assist it in such management and administration. The Trustee shall be able to charge the Trust Funds for such compensation and for any reasonable expenses including counsel, appraisal or accounting fees, and the same may be deducted from the Trust Funds unless paid by the Company within sixty (60) days after the Company receives written billing by the Trustee; provided that this paragraph shall not apply while a dispute over the amount of such charges exists.

## ARTICLE XVI

### PROTECTION OF TRUSTEE

A.....Certification. The Company shall certify to the Trustee the name or names of any person or persons authorized to act for the Company. Such certification shall be signed by the Secretary of the Company duly authorized by the Board of Directors. Until the Company notifies the Trustee, in a similarly signed notice, that any such person is no longer authorized to act for the Company, the Trustee may continue to rely upon the authority of such person. The Trustee may rely upon any certificate, notice or direction of the Company which the Trustee reasonably believes to have been signed by a duly authorized officer or agent of the Company. Notices to the Trustee shall be sent in writing to the Trustee, c/o Trimble Navigation Limited, 585 N. Mary Avenue, Sunnyvale, California 94088-3642. No communication shall be binding upon the Trust Funds or the Trustee until it is received by the Trustee and unless it is in writing and signed by an authorized person. Notices to the Company shall be sent in writing attention to the Company's principal office to the Chief Financial Officer, c/o Trimble Navigation Limited, 585 N. Mary Avenue, Sunnyvale, California 94088-3642, or to such other address as the Company may specify. No notice shall be binding upon the Company until it is received by the Company.

B.....Legal Counsel. The Trustee may consult with any legal counsel ("Legal Counsel"), except as provided in Article XVIII.C, for the purpose of obtaining advice on topics including but not limited to the construction of this Plan, its duties hereunder, or any act which it proposes to take or omit, and shall not be liable for any action taken or omitted in good faith pursuant to such advice. Expenses of Legal Counsel shall be deemed to be expenses of management and administration of the Trusts within the meaning of Article XV.D hereof.

C.....Trustee Duties. The Trustee shall discharge its duties under this Plan in a manner consistent with the objectives of this Plan. The Trustee shall not be liable for any loss sustained by the Trust Funds by reason of the purchase, retention, sale or exchange of any investment in good faith and in accordance with the provisions of this Plan. The Trustee shall have no responsibility or liability for any failure of the Company to make contributions to the Trust Funds or to pay vested accrued benefits when due. The Trustee's duties and obligations shall be limited to those expressly imposed upon it under the provisions of this Plan relating to the Trusts, and the Trustee shall not have responsibility under the provisions of this Plan relating to the Plan, notwithstanding any reference to the Plan.

ARTICLE XVII

INDEMNIFICATION OF TRUSTEE

To the fullest extent permitted by law, the Company agrees to indemnify, to defend, and to hold harmless the Trustee against any liability whatsoever for any action taken or omitted by such Trustee in good faith in connection with this Plan or duties hereunder and for any expenses or losses for which the Trustee may become liable as a result of any such actions or non-actions unless resultant from gross negligence or willful misconduct.

ARTICLE XVIII

RESIGNATION AND REMOVAL OF TRUSTEE AND LEGAL COUNSEL

A.....Resignation. The Trustee may resign upon thirty (30) days' prior written notice to the Company, except that any such resignation shall not be effective until a successor trustee has been appointed, and such successor has accepted the appointment in writing, but in any event no later than ninety (90) days after such resignation. The Company shall condition its acceptance of such successor on the obtaining from such successor of a written statement that the successor has read this Plan and Trust Agreement and understands its obligations thereunder.

B.....Removal. The Company may remove the Trustee upon thirty (30) days' prior written notice to the Trustee. Any such removal shall not be effective until the close of such notice period and delivery by the Company to the Trustee of (i) an instrument in writing appointing a successor trustee, (ii) an acceptance of such appointment in writing executed by such successor, and (iii) a written statement by such proposed successor that the successor has read this Plan and Trust Agreement and understands its obligations thereunder.



C.....Successor Trustee. Upon the resignation or removal of the Trustee and appointment of a successor, the Trustee shall transfer and deliver the Trust Funds to such successor. Following the effective date of the appointment of the successor, the Trustee's responsibility hereunder shall be limited to managing the assets in its possession, transferring such assets to the successor and settling its final account. Neither the Trustee nor the successor shall be liable for the acts of the other. All of the provisions set forth herein with respect to the Trustee shall relate to each successor with the same force and effect as if such successor had been originally named as the Trustee hereunder.

#### ARTICLE XIX

##### DURATION AND TERMINATION OF TRUST AND AMENDMENT

A.....Irrevocable. The Trusts are hereby declared to be irrevocable and shall continue until all vested accrued benefits have been paid.

B.....Termination of Trust. If the Trusts terminate under the provisions of Article XIX.A, the Trustee shall liquidate the Trust Funds and, after their final accounting has been settled, shall distribute to the Company the net balance of any assets of the Trust Funds remaining after all vested accrued benefits and administration expenses have been paid. Upon making such distribution, the Trustee shall be relieved from all further liability.

C.....Plan Amendment. This Plan may be amended, or the Plan terminated or suspended, by an instrument in writing executed on behalf of the Company by the President of the Company or the Administrator, or a duly appointed representative of the Board of Directors and delivered to the Trustee, provided, however, that (i) no amendment will be made to this Plan which will cause this Plan, the Trusts or the assets of the Trust Funds to be governed by or subject to Part 2, 3 or 4 of Title I of ERISA, (ii) no such amendment shall adversely affect any Trust Beneficiary's accrued benefit, (iii) no such amendment shall increase the duties or responsibilities of the Trustee unless the Trustee consents thereto in writing, (iv) no such amendment which would cause the Trusts to be other than "grantor trusts," or have contributions to the Trusts by the Company, or income and gains of the Trust Funds, constitute a taxable event to the Trusts or to the Executives, and (v) no such amendment shall cause the vested accrued benefit paid to Trust Beneficiaries from the Trust Fund to become nondeductible to the Company in the year of payment.

#### ARTICLE XX

##### MISCELLANEOUS

A.....California Law. This Plan and the Trusts hereby created shall be construed and regulated by the laws of the State of California.



TRIMBLE NAVIGATION LIMITED  
NONQUALIFIED DEFERRED COMPENSATION PLAN  
DEFERRED COMPENSATION AGREEMENT

1. I acknowledge that the terms and conditions of the Trimble Navigation Limited Nonqualified Deferred Compensation Plan ("Plan") have been explained to me, including the tax consequences of my decision to participate in the Plan.
2. I agree to defer all or a portion of my current income, and to have that income paid to me at a later date pursuant to the terms and conditions of the Plan, which is incorporated by reference, in its entirety, in this Agreement.
3. I acknowledge that under the terms of the Plan, no payments can be made in the event Trimble Navigation Limited is Insolvent (as defined in the Plan).
4. I understand that this Agreement is not an employment agreement, does not guarantee that I will receive any predetermined amount of compensation, and does not guarantee that I will receive any bonus.
5. I understand that any income I defer will be held as an asset of Trimble Navigation Limited and will remain subject to the claims of the general creditors of Trimble Navigation Limited.

ELECTION TO DEFER INCOME

I hereby elect to defer

% of my future salary (between 1% and 100%)

% of any future bonus (between 1% and 100%)

I understand that I may discontinue deferral of future Compensation at any time during the year, but that I may make no other change in the Agreement until the beginning of the calendar year after I have notified Trimble Navigation Limited in writing of the change I desire. I also understand that if I discontinue deferral of future Compensation during the year, I cannot restart deferral until the beginning of the succeeding calendar year.

DISTRIBUTION

I understand that all vested amounts held for my benefit under the Plan shall begin to be distributed upon the earlier of my termination of employment with Trimble Navigation Limited for any reason, including retirement, disability or death, or upon a change of control or unforeseen emergency as described in the Plan. In addition, I may elect to commence an early distribution (an "Early Distribution Election") prior to such dates by making the following election:

Distribution of vested amounts held for my benefit under the Plan should commence:

3 years after the date of this Agreement  
or  
5 years after the date of this Agreement

I understand that an Early Distribution Election cannot be changed, except to make a one-time only election to extend the deferral period which must be made at least one year before the deferral period ends.

METHOD OF PAYMENT (One method must be checked in order for this to be a valid Agreement)

Subject to the preceding election, if any, I elect that the payment of all vested amounts due me under this Agreement and the Plan shall be made in the following manner:

One single lump sum payment paid as soon as administratively possible following termination of employment or my death.

Annual installments equal to  $1/n$  of the assets on deposit in the trust credited to my account, where  $n$  is the number of installments remaining to be paid. I hereby elect \_\_\_\_\_ annual payments (not to exceed 10 years), with the first payment being made in the year in which I terminate from employment or die, whichever first occurs.

Annual installments equal to a specified % of the vested assets credited to my account under the Trust. I hereby elect \_\_\_\_\_ annual payments (not to exceed 10 years). Please indicate the installment % by year in the following space provided:

Year	%
1	-----
2	-----
3	-----
4	-----
5	-----
6	-----
7	-----
8	-----
9	-----
10	100%

I understand that my elected method of distribution can be changed up to 90 days prior to the date of actual distribution.

I understand further that my elected method of distribution may be modified by Trimble Navigation Limited at any time prior to my termination of employment, provided that any such modification that impairs my rights under this Agreement and the Plan shall be subject to my consent.

DESIGNATED BENEFICIARY

In the event that I should die before all amounts payable to me under the Plan have been paid, I designate the following beneficiary to receive the remainder of my interest under the Plan. I understand that I may change this Designated Beneficiary at any time on written notice to Trimble Navigation Limited.

Please follow the Beneficiary Election on file for the Trimble Navigation Limited Savings and Retirement Plan.

or

Name(s) and Relationship:

The foregoing Election is voluntarily made by me after reviewing the terms of the Plan and with knowledge that this Election is irrevocable until changed in accordance with the terms of the Plan.

(Signature) Agreed:  
TRIMBLE NAVIGATION LIMITED

(Print Name) By

(Social Security Number)

(Date) (Date)



EXHIBIT 21.1

TRIMBLE NAVIGATION LIMITED

LIST OF SUBSIDIARIES OF REGISTRANT

TR Navigation Corporation (incorporated in California)	Trimble Middle East WLL (organized under the laws of Egypt)
Trimble Specialty Products, Inc. (incorporated in California)	Trimble Brasil Limitada (organized under the laws of Brazil)
Trimble Navigation Europe Limited (organized under the laws of the United Kingdom)	Trimble Mexico S. de R.L. (organized under the laws of Mexico)
Trimble Navigation International Foreign Sales Corporation (organized under the laws of Barbados)	Datacom Software Limited (incorporated in California)
Trimble Navigation International Limited (incorporated in California)	
TNL Flight Services, Inc. (incorporated in Texas)	
Trimble Navigation New Zealand Limited (organized under the laws of New Zealand)	
DataCom Software Research Limited (organized under the laws of New Zealand)	
Trimble Navigation Italia s.r.l. (organized under the laws of Italy)	
Trimble Navigation Deutschland GmbH (organized under the laws of Germany)	
Trimble Navigation France S.A. (organized under the laws of France)	
Trimble Navigation Singapore PTE Limited (organized under the laws of Singapore)	
Trimble Navigation Iberica S.L. (organized under the laws of Spain)	
Trimble Navigation Australia Pty Limited (organized under the laws of Australia)	
Trimble Japan K.K. (organized under the laws of Japan)	
Trimble Export Limited (incorporated in California)	

TRIMBLE NAVIGATION LIMITED

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the use of our report dated January 26, 1999 in this Annual Report (Form 10-K) of Trimble Navigation Limited for the year ended January 1, 1999.

We also consent to the incorporation by reference in the Registration Statement (Form S-8 Nos. 33-37384, 33-39647, 33-45167, 33-45604, 33-46719, 33-50944, 33-57522, 33-62078, 33-78502, 33-84362, 33-91858, 333-04670, 333-28429 and 333-53703) pertaining to the 1983 Stock Option Plan, the Trimble Navigation Savings and Retirement Plan, the 1990 Director Stock Option Plan, the "Position for Us for Progress" 1992 Employee Stock Bonus Plan, the 1992 Management Discount Stock Option Plan, and the 1993 Stock Option Plan, and the related Prospectuses, of our report dated January 26, 1999 with respect to the consolidated financial statements and schedule of Trimble Navigation Limited included in the Annual Report (Form 10-K) for the year ended January 1, 1999.

/s/ ERNST & YOUNG LLP

Palo Alto, California  
March 25, 1999



THE SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONDENSED CONSOLIDATED BALANCE SHEET AND CONDENSED CONSOLIDATED STATEMENT OF EARNINGS AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS

1,000

12-MOS JAN-01-1999 JAN-01-1999		12-MOS JAN-02-1998 JAN-02-1998	
	40,865		19,951
	16,269		53,171
	33,431		49,101
	0		0
	37,166		42,385
	131,904		168,755
	15,104		19,676
	0		0
	156,279		207,663
49,948	0	37,483	0
0	0	0	0
	122,201		133,355
	(47,510)		6,128
156,279	207,663		
	260,279		258,894
260,279	134,723	258,894	118,903
	134,723		118,903
	148,736		120,146
	0		0
	3,396		3,525
	(25,221)		21,017
	1,400		2,496
(26,621)		18,521	
	(26,773)		(9,242)
	0		0
	0		0
	(53,394)		9,279
	(2.38)		0.42
	(2.38)		0.40