

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

FORM 10-K

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended **June 30, 2007**

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 **0-12944**

ZYGO CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

06-0864500

(IRS Employer Identification Number)

Laurel Brook Road, Middlefield, Connecticut 06455-1291
(Address of principal executive offices) (Zip Code)

(860) 347-8506

(Registrant's telephone number, including area code:)

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

None

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

Common Stock, \$.10 Par Value

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K(229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in rule 12b-2 of the Exchange act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

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

The aggregate market value of the registrant's Common Stock held by non-affiliates, based upon the closing price of the Common Stock on December 31, 2006, as reported by the NASDAQ National Market, was \$208,255,816. Shares of Common Stock held by each executive officer and director and by each person who owns 5% or more of the outstanding Common Stock, based on filings with the Securities and Exchange Commission, have been excluded since such persons may be deemed affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Indicate the number of shares outstanding of each of the registrant's classes of Common Stock, as of the latest practicable date.

18,529,696 Shares of Common Stock, \$.10 Par Value, at September 4, 2007

Documents incorporated by reference: Specified portions of the registrant's Proxy Statement related to the registrant's 2007 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A of the Securities Exchange Act of 1934 with the Securities and Exchange Commission, are incorporated by reference into Part II (Item 5) and Part III (Items 10-14) of this Annual Report on Form 10-K to the extent stated herein.

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As used in this Annual Report on Form 10-K, unless the context otherwise requires, the terms “we,” “us,” “our,” “Company”, and “ZYGO” refer to Zygo Corporation, a Delaware corporation.

FORWARD-LOOKING STATEMENTS

All statements other than statements of historical fact included in this Annual Report regarding our financial position, business strategy, plans, anticipated sales and growth rates, market opportunities, and objectives of management for future operations are forward-looking statements. These forward-looking statements include without limitation statements under “Business,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Risk Factors.” Forward-looking statements are intended to provide management’s current expectations or plans for the future operating and financial performance based upon information currently available and assumptions currently believed to be valid. Forward-looking statements can be identified by the use of words such as “anticipate,” “believe,” “estimate,” “expect,” “intend,” “plans,” “strategy,” “project,” and other words of similar meaning in connection with a discussion of future operating or financial performance. Actual results could differ materially from those contemplated by the forward-looking statements as a result of certain factors such as those disclosed under “Risk Factors.” Such statements reflect our current views with respect to future events and are subject to these and other risks, uncertainties, and assumptions relating to the operations, results of operations, and our growth strategy.

Any forward-looking statements included in this Annual Report speak only as of the date of this document. ZYGO undertakes no obligation to publicly update or revise forward-looking statements to reflect events or circumstances occurring after the date of this 10-K.

PART I

Item 1. Business

OVERVIEW

Zygo Corporation (“ZYGO,” “we,” “us,” “our,” or “Company”) designs, develops, and manufactures ultra-high precision measurement solutions to improve our customers’ manufacturing yields, and top-tier optical sub-systems and components for original equipment manufacturers (“OEM”) and end-user applications. We operate with two divisions. Our Metrology Solutions Division (also referred to herein as the “Metrology segment”) manufactures products to improve quality, increase productivity, and decrease the overall cost of product development and manufacturing for high-technology companies, particularly in their semiconductor manufacturing processes. Our Optical Systems Division (also referred to herein as the “Optics segment”) provides leading-edge product development and manufacturing services that leverage a variety of core technologies across medical, defense, semiconductor, laser fusion research, biomedical, and other industrial markets.

Our Metrology Solutions Division serves the semiconductor and industrial markets by providing process control for surface shape and roughness, which are critical to all of our markets, through product offerings that measure surface and material characteristics such as roughness, figure, and transmitted wavefront of flat, spherical, and aspheric components. Our semiconductor product offerings include semiconductor metrology tools, OEM solutions, in-line automated yield improvement systems for both flat panel displays and advanced semiconductor packaging manufacturing and technology development projects for the semiconductor capital equipment industry. Our displacement measurement systems are used extensively in ultra-precise wafer positioning systems for the semiconductor capital equipment industry. One of our continuing strategic initiatives is to expand our product offerings by applying our patented technology to integrated in-line technology. During our fiscal year ended June 30, 2007, we made continued progress on this initiative by expanding our semiconductor applications to a fully integrated wafer based metrology solution, the Z3D-7200™, and increasing our market penetration of our integrated front-end tool, the Z3D-7000™. Additionally, during the same period, we introduced the UniFire™ 7900 optical metrology tool which delivers high precision three-dimensional information that can be used for surface topography, critical dimension, overlay/registration, and film thickness metrology in one small footprint. This progress continues our transition from our traditional lab environment to the production floor.

Our industrial market products serve the defense/aerospace, automotive, consumer electronics, commercial optics, and all markets other than semiconductor. Industrial market products include measurement-based process control systems for defense and aerospace customers, and measurement-based process control and yield-enhancement systems for automotive, consumer electronics, and commercial optical customers. During the last two years, we introduced and marketed the VeriFire™ Asphere, GPI™ PE, GPI FlashPhase™ and NewView™ 600 systems. The VeriFire Asphere moves us into the growing asphere measurement market supporting consumer electronics and defense/aerospace markets. The GPI FlashPhase and GPI PE systems operate on the production floor where standard interferometers cannot measure or do not meet the demanding requirements of the defense/aerospace market and commercial optical markets.

Our solutions are primarily based on optical interferometric technology. We continue to be a world leader in optical interferometry with a patent portfolio of approximately 245 active and 225 pending patents, most of which are related to the broad field of interferometry and its practical application.

Our Metrology Solutions Division is headquartered in Middlefield, Connecticut with operations in various domestic and international locations.

Our Optical Systems Division specializes in producing high precision integrated optical systems and unique system-critical optical components for a variety of applications that include medical laser delivery systems, U.S. Department of Defense (“Defense Department”) applications, 3D medical imaging, and semiconductor lithography. The division creates long-term customer value through proprietary manufacturing technology, design for manufacturing and assembly services and specialized market know-how required to produce and support Food and Drug Administration (“FDA”) regulated medical devices.

Our integrated system assembly operation for our Optical Systems Division located in Tucson, Arizona, is a tier-one optical system assembly facility for high-precision, volume production. We assemble and integrate devices ranging from medical laser delivery systems to vacuum relay telescopes to opto-electronic surveillance devices. Our integrated system design and prototyping operation, located in Costa Mesa, California, designs and manufactures prototypes utilizing multi-axis alignment, optical contact assembly, custom tooling, single point diamond turning, and our proprietary metrology equipment. We also operate a large format optical fabrication and coating center located in our Middlefield, Connecticut, facility. Our vertically integrated approach encompasses CNC glass machining and lightweighting, rotational and double-sided polishing and magneto rheological finishing polishing, and thin film coating, supported by our proprietary metrology equipment. We produce laser fusion amplifiers and meter-class plano optics, including low aspect ratio and advanced materials such as sapphire.

We were incorporated in 1970 under the laws of the State of Delaware. The address of our principal executive offices is Laurel Brook Road, Middlefield, Connecticut, 06455-1291. Our telephone number at this address is (860) 347-8506. Our website address is www.zygo.com. The information on our website is not part of this Form 10-K.

MARKETS, PRODUCTS, AND CUSTOMERS

During the second quarter of fiscal 2007, we reorganized the business into two operating divisions – Metrology Solutions Division (Metrology segment) and Optical Systems Division (Optics segment). Consistent with our new business structure, beginning with the second quarter in fiscal 2007, we reported our segments as Metrology and Optics. The Metrology segment consists of OEM and in-line products primarily for the semiconductor and industrial markets. The Optics segment consists of components and opto-mechanical assemblies primarily for the medical, defense, and aerospace industries, which are part of the industrial market. Prior to the second quarter of fiscal 2007, our segments were reported as Semiconductor and Industrial. Prior year segment information has been restated in a manner consistent with our new reporting segments. For more information related to our segments, please refer to Note 16 Segment reporting, to our Consolidated Financial Statements included in this Annual Report.

Manufacturers in the semiconductor and industrial markets strive to improve their manufacturing processes and product performance. These improvements allow them to compete more effectively in a marketplace characterized by decreasing product dimensions, increasingly complex manufacturing processes, and decreasing product life cycles, declining product prices, and intensifying global competition, among other factors. As such, our precision metrology and optical components and systems are designed to help these manufacturers continually achieve process and design improvements.

Metrology Solutions Division

Semiconductor Market

We serve several areas of the semiconductor market, notably semiconductor manufacturers, capital equipment suppliers, as well as the flat panel display and advanced semiconductor packaging. We have a broad and growing range of products that serve these market areas.

Semiconductor manufacturing processes require demanding metrology and inspection technologies. From bare silicon wafers through packaged die, metrology and inspection is critical to meeting technology development and process control demands. Recent products introduced by us are enabling high volume semiconductor manufacturing customers to address the challenges of today as well as advanced processing down to the 45 nanometer (“nm”) node.

All of our automated semiconductor systems are built on a common, high-throughput platform with a common, configurable sensor head. This approach allows us to leverage engineering and manufacturing investments to produce reliable and cost effective solutions for our customers. Additionally, the flexible sensor head enables our “OneShot™” algorithms to provide simultaneous measurement of multiple process parameters thereby dramatically increasing process module level throughput and productivity by driving down time to decision.

Semiconductor Products

The Z3D-7000™ is a non-destructive, high throughput, optical metrology system that measure 3-Dimensional features critical for transistor formation in the front end of the line (“FEOL”). This system is targeted to measure production wafers at the 45 nm node with state-of-the-art precision and repeatability thereby enabling development and its associated transfer to high volume manufacturing.

The Z3D-7200 addresses the bare wafer metrology and inspection market by enabling control of critical parameters such as surface roughness, wafer form, and general topography. With its multifunction capability, this system consolidates a number of different metrology measurements into one system, thereby eliminating the need to purchase multiple tools from different suppliers; the end result being a lower overall cost of ownership (“COO”) for the customer.

Building on lower COO, the UniFire™ 7900 enables multiple back end of the line (“BEOL”) litho and etch measurements to be made under the umbrella of a single system. These measurements include 3-Dimensional information about surface topography, critical dimension, overlay/registration, and film thickness. The UniFire 7900 exploits our “OneShot” technology by simultaneously measuring multiple parameters without any loss in measurement precision. This multi-function tool enables semiconductor manufacturers to consolidate multiple metrology tools in their litho and etch modules, thus saving valuable cleanroom real estate and reducing overall metrology costs.

Photolithography scanners form the core of the semiconductor manufacturing process. These scanners image the patterns of stacked layers of circuitry that make up transistors. The photolithographic scanners image the circuitry onto both silicon wafers for microprocessors and memory chips and also flat panel displays for computers, televisions, and other displays. Several of our products enable these scanners to image these circuit patterns reliably and with nanometer precision.

Precision Positioning Systems

The layers of circuit patterns must overlay on top of each other to nanometer precision. To achieve nanometer precision overlay, the silicon wafer must be repeatably positioned to one-tenth the overlay tolerance. Photolithography scanners, mask and reticle writers, and yield improvement metrology tools rely on displacement measuring interferometers (“DMI”) to provide precise feedback to control the position of the silicon wafer. Our Metrology Solutions Division’s ZMI™ 2000 and ZMI™ 4000 precision positioning feedback systems are designed primarily for photolithography scanners. They are also used in a broad range of semiconductor metrology and backend process tools.

Technology Development Projects

Lithography scanners image the electronic circuit pattern through a precision projection lens. The optical performance of the lenses required for next-generation lithography scanners often exceeds the capabilities of commercially available measurement systems. Our expertise in optical interferometer technology, and the practical skills needed to apply this technology, make us well suited to deliver custom solutions to leading photolithography equipment suppliers.

Display Solutions

Flat panel displays (“FPD”) first were used in cell phones and laptop computers, and have grown in popularity for most personal electronics. Many large screen televisions are based on flat panel display technology. Our systems, with ultra high precision measurement solutions, enable our customers to improve flat panel display manufacturing yields. Our OneShot and SureShot™ systems are in-line process control, yield enhancement tools. The FPD OneShot tool measures the topography and critical dimensions (“CD”) of key color filter features prior to being combined with the thin-film-transistor panel in the “one drop fill” assembly process. This fully automated system incorporates the latest ZYGO Intellisensor, optical profiler technology, integrated conveyors or robotics with motion stages, mini-clean room environmental enclosures, and factory floor command and control software. The system measures the height and width of key optical components, and predicts the fill volume to increase upstream manufacturing yields.

The SureShot™ FPD product provides overlay and CD metrology of the individual mask layers post lithography and helps identify process control problems such as those found in the half tone process. These defects, left unchecked, can lead to product performance issues including variances in illuminance (called MURA) in the finished display.

The SureShot tool can be used as an off-line process analysis device, or in-line in conjunction with closed loop lithography process control.

Advanced Chip Packaging and Assembly

During the manufacture of a semiconductor chip, after the chip making process is complete, the silicon wafer on which the chips are fabricated must be diced into individual chips and packaged for customer use. In advanced chip packaging fabrication facilities, the new CP 6300i™ system measures patterned features and films on the surfaces of diced and un-diced chips, for process control and yield improvement. The system incorporates a specialized ZYGO NewView™ optical profiler and wafer positioning system with pattern recognition software. It can be configured for clean room or laboratory use.

Major Metrology Semiconductor Customers include:

Applied Materials	Intel
AU Optronics	KLA-Tencor Corporation
Canon	Nikon
Chi Mei	

Industrial Market

Our industrial market covers all areas other than semiconductor. Products for defense and aerospace companies include optical components, optical systems, and measurement-based process control systems. Products for automotive, consumer electronics and other customers are measurement-based process control and yield enhancement systems.

Consumer Electronics

Consumer electronics, including cell phones, digital cameras, DVD and CD players, and optical computer drives, all have significant optical content. Consumer electronic optics, which provides imaging and data storage, are manufactured in quantities in the hundreds of thousands to millions of components per year. These complex miniature optical systems require precise optical testing—from development to in-line process control—which our measurement-based process control and yield enhancement systems are designed to perform.

VeriFire Asphere System

The VeriFire Asphere provides high resolution 3-Dimensional surface metrology for aspheric shaped surfaces using patented non contact interferometric techniques for production and process control. Aspheres are important in consumer electronics products, cameras, military/defense optics and commercial optics and represent a fast growing segment in optics today.

GPI and VeriFire Systems

The development of new optical systems for any application requires very flexible and easy to use test equipment. The ZYGO GPI and VeriFire systems are our latest products in our established product family that has improved optical testing and continues to evolve to meet changing requirements. Consumer electronics production applications for larger optics, greater than 25 mm diameter, and research and development for any size application rely on these products for critical developmental data and process control feedback in production. These products are widely used due to their configuration flexibility in both hardware set ups and ZYGO's MetroPro™ data analysis software.

PTI 250™

Consumer electronics typically contain small optics, less than 30 mm diameter. The PTI 250 is a small bench top optical test system in the tradition of our industry standard GPI. The system meets the consumer market demand by combining high-quality optics with ZYGO's MetroPro data analysis software.

DVD 400™, BluRay™, and HD DVD™

The next generation of DVD players and computer memories are expected to use blue light at 405 nm wavelength to increase the amount of data on a DVD disk. ZYGO's DVD 400 interferometer is used by the developers of these next generation systems. ZYGO's DVD 400P is our system for the production floor.

Automotive Industry

The automotive industry is striving to improve fuel economy and decrease environmental pollution to meet customer demand and adhere to government regulation. Improving both requires more efficient engines, including the fuel injection system. Since high-pressure valves and sealing surfaces found in the fuel injection system must be manufactured to high precision, our measurement-based process control and yield-enhancement systems are used in the development and manufacture of these components.

NewView™ 6200/6300 and Delta™ Systems

Our high precision metrology equipment is well suited for fuel injector components, which are ground or lapped to tolerances of one-hundred billionths of a meter. Our patented "FDA" data acquisition system for the NewView optical profiler meets this high-precision measurement requirement. We recently introduced the NewView 6200 and NewView 6300 for these applications, offering increased speed and better performance at a lower price point. The NewView Delta is a production floor packaged system, also targeted to this growing market.

Defense/Aerospace

GPI and VeriFire Systems: Developing state-of-the-art optical designs and manufacturing technology for the defense/aerospace market also requires leading metrology systems for manufacturing process control and development. Our industry standard GPI and VeriFire optical interferometers test both the optical components and systems for design compliance. During the last two years, we introduced and marketed the VeriFire Asphere, GPI PE and GPI FlashPhase systems. The VeriFire Asphere rapidly measures asphere shaped optics in a production environment. The GPI PE continues our move to the production floor providing lab level results in a production environment. Using patented algorithms the GPI PE removes the degrading effects of vibration from the measurement without the need for new expensive hardware. This system is primarily used in the production of military and commercial optics.

The GPI FlashPhase system operates on the production floor where standard interferometers cannot measure or do not meet the demanding requirements of the defense/aerospace market. With our proprietary data acquisition, GPI FlashPhase can measure in the turbulent and vibrating environments that are often found in defense/aerospace applications. We are also active in designing and manufacturing custom systems for defense/aerospace applications, especially interferometers that operate at infrared wavelengths, which are unique to this market.

Major Metrology Industrial Customers include:

Bosch	Goodrich
Canon	Lockheed Martin
Corning	Raytheon

Optical Systems Division

Industrial Market

Supporting both the projection lens and stage positioning systems, we supply OEM optical components to leading photolithographic suppliers. The core of the wafer stage positioning system is the stage mirror. ZYGO manufactures stage mirror assemblies that are part of the stage positioning system, and various OEM optical components for projection optical systems.

Defense/Aerospace

Defense and aerospace companies use optical technology in a broad range of applications. One application is the enhancement of human sight through imaging systems, such as telescopes, that are used in satellite and airborne reconnaissance, fire-control systems, and hand-held viewers. Defense Department areas of focus include fire control, remote sensing, flight simulation, avionics, tracking, stealth systems and high energy weapon systems. Our Optical Systems Division participates in a variety of defense applications ranging from high performance sapphire electro magnetic interference (“EMI”) windows used in stealth aircraft and ships to satellite optical sensing packages and state of the art flight simulation helmet mount displays. In addition to mainstream Defense Department and foreign government applications, we are a leading manufacturer of several critical path components to the largest nuclear research laser system ever deployed by the National Ignition Facility (“NIF”), which is used for both weapons maintenance programs and the development of nuclear fusion energy sources. In addition, our Optical Systems Division has expanded into long range surveillance systems valuable to home land security applications such as nuclear power plant perimeter control, border surveillance, and seaport monitoring.

Nuclear research for both weapons maintenance programs and the development of nuclear fusion energy sources also use large optical lasers at a number of worldwide facilities, including the NIF. In addition, projection systems in computer-based flight and battlefield simulation use sophisticated optical systems. Several of our products support these and other defense/aerospace programs.

Medical/Biomedical

The medical and biomedical markets are growing rapidly. The increased demand for high precision medical devices continues to be driven by an aging population and consumer’s desire to improve the quality of life. Our Optical Systems Division addresses this demand with specialized design for manufacturing and assembly services tailored to producing high-end diagnostic, processing and surgical devices. In addition the group offers a variety of process control advantages including medical device quality management systems, such as ISO 13485:2003. Key application areas are diagnostic and surgical ophthalmic devices, inter-oral 3D imaging, and biomedical cell sorting. Supporting these applications are our facilities in Tucson, Arizona (manufacturing) and Costa Mesa, California (development and prototype manufacturing). Strategically located, these facilities are capable of providing highly focused engineering support to fast growing medical and biomedical regions for both manufacturing and research.

Major Optics Industrial Customers include:

AWE	University of Rochester
Intralase	Zeiss
Lawrence Livermore National Laboratory	

Competition

The semiconductor and industrial markets in which we participate are intensely competitive and are characterized by price pressure and rapid technological change. Furthermore, these markets are dominated by a few market leaders. We are one of a limited number of companies that develop and market yield-enhancement solutions. Our primary yield enhancement competitors include Agilent’s Laser Interferometer Positioning Systems Division, Veeco’s Metrology Division, SNU Precision, KLA-Tencor, and Rank Taylor Hobson. The principal factors upon which we compete are performance, flexibility, value, on-time delivery, responsive customer service and support, and breadth of product line.

Research, Development and Engineering Operations

We operate in industries that are subject to rapid technological change and engineering innovation. As such, we dedicate substantial resources to research and development. At June 30, 2007, we employed 130 individuals or approximately 22% of our workforce within our research and development and engineering operations. Our strategy is to form close technical working relationships with customers and OEM suppliers in our markets to ensure that our products are commercially relevant. We also maintain a close working relationship with various research groups and academic institutions in the United States and abroad. We have been recognized as an innovator in commercializing technology, as evidenced by our numerous achievement awards, including R&D 100 Awards, Photonics Spectra Circle of Excellence Awards, and others. We believe that continued enhancement, development, and commercialization of new and existing products and systems are essential to maintaining and improving our leadership position.

Patents and Other Intellectual Property

Our success and ability to compete depend substantially on our technology. We have been developing a portfolio of intellectual property for over 30 years, and we rely on a combination of patent, copyright, trademark, trade secret laws, and license agreements to establish and protect our proprietary rights for our products.

Since we introduced the first optical interferometer in 1972, we have had approximately 235 United States patents issued, of which approximately 180 are currently active, and approximately 100 foreign patents issued, of which approximately 65 are active. We have approximately 75 United States and approximately 150 foreign patent applications pending. In addition, we have a number of registered and unregistered trademarks.

While we rely on patent, copyright, trademark, and trade secret laws to protect our technology, we also believe that the technological and creative skills of our personnel, new product developments, frequent product enhancements, and reliable product maintenance are essential to establishing and maintaining a technology leadership position.

BACKLOG AND ORDERS

Backlog at June 30, 2007 was \$72.2 million, a decrease of \$8.6 million, or 11%, as compared with \$80.8 million at June 30, 2006. The fiscal 2007 year-end backlog consisted of \$29.5 million, or 41%, in the Metrology segment and \$42.7 million, or 59%, in the Optics segment. Orders for the fiscal year ended June 30, 2007 totaled \$172.5 million and consisted of \$116.4 million, or 67%, in the Metrology segment and \$56.1 million, or 33%, in the Optics segment.

MARKETING AND SALES

Our sales and marketing strategy is to establish and/or solidify strategic relationships with leading OEMs and end-users in targeted sectors within our markets. The selling process for our products is performed through our worldwide sales organization operating out of regional sales offices in California, Connecticut, Germany, Japan, Singapore, Taiwan, China, and Korea. Supporting this core sales team are business development, marketing, service, and engineering specialists representing our various optics and metrology units in Connecticut, Arizona, California, and Florida. Product promotion is done through trade shows, printed and e-business advertising, and industry technical organizations.

The following table sets forth the percentage of our total sales by region (based on shipping destination, including sales delivered through distributors) during the past three years:

	Fiscal Year Ended June 30,		
	2007	2006	2005
Domestic	<u>39%</u>	<u>35%</u>	<u>34%</u>
Far East:			
Japan	<u>37%</u>	<u>45%</u>	<u>43%</u>
Pacific Rim	<u>13%</u>	<u>11%</u>	<u>12%</u>
Total Far East	<u>50%</u>	<u>56%</u>	<u>55%</u>
Europe	<u>11%</u>	<u>9%</u>	<u>11%</u>
Total	<u>100%</u>	<u>100%</u>	<u>100%</u>

Customer service is an essential part of our business since product up time is critical given its effect on our customers' production efficiency. As of June 30, 2007, our global sales customer support and service organization consisted of 95 people skilled in sales, marketing, optical and electro component repair, software, application and system integration, diagnostics, and problem-solving capabilities.

MANUFACTURING, RAW MATERIALS, AND SOURCES OF SUPPLY

Our principal manufacturing activities are conducted at our facilities in Middlefield, Connecticut and Tucson, Arizona. We also perform manufacturing activities in our Delray Beach, Florida, facility and utilize a third-party assembly operation in Taiwan for our Flat Panel Display systems.

We maintain an advanced optical components manufacturing facility in Middlefield, Connecticut, specializing in the fabrication, polishing, and coating of plano, or flat, optics for sales to third parties, as well as the manufacturing of a wide variety of optics that are used in our metrology products. Our manufacturing activities for our metrology products consist primarily of assembling and testing components and sub-assemblies supplied by us and third-party vendors, and then integrating these components and sub-assemblies into our finished products.

Our optical assembly manufacturing activities are conducted in our Tucson, Arizona facility. We integrate our optics, optics from third party vendors, and mechanical sub-systems utilizing our metrology in this facility.

Certain components and sub-assemblies incorporated into our systems are obtained from a limited group of suppliers. We routinely monitor limited source supply parts, and we endeavor to ensure that adequate inventory is available to maintain manufacturing schedules should the supply of any part be interrupted. Although we seek to reduce our dependence on limited source suppliers, we have not qualified a second source for some of these products and the partial or complete loss of certain of these sources could have a negative impact on our results of operations and damage customer relationships.

AVAILABLE INFORMATION

We make available free of charge through our website, www.zygo.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with the Securities and Exchange Commission ("SEC"). These reports may also be obtained without charge by contacting Investor Relations, Zygo Corporation, Corporate Headquarters, Laurel Brook Road, Middlefield, Connecticut 06455-1291, phone: (860) 347-8506. Our Internet website and the information contained therein or incorporated therein are not intended to be incorporated into this Annual Report on Form 10-K. In addition, the public may read and copy any materials we file with the SEC's Public Reference Room at 100 F Street, NE, Room 1580, Washington, DC 20549 or may obtain information by calling the SEC at 800-SEC-0330. Moreover, the SEC maintains an Internet website that contains reports, proxy, and information statements, or other information regarding reports that we file electronically with them at <http://www.sec.gov>.

EMPLOYEES

At June 30, 2007, we employed 575 people and 22 temporary agency and independent contractors worldwide. We employed 284 in manufacturing, 130 in research and development, 95 in sales and marketing, and 88 in management and administration. Our employees are not represented by a labor union or a collective bargaining agreement. We regard our employee relations as satisfactory.

EXECUTIVE OFFICERS OF THE REGISTRANT

J. Bruce Robinson – age 65 – Chairman and Chief Executive Officer

Mr. Robinson has served as our Chairman and Chief Executive Officer since December 2006, as Chairman, President, and Chief Executive Officer from November 2000 to November 2006, as President and Chief Executive Officer from November 1999 to November 2000, and as President from February 1999 to November 1999. Previously, he spent 25 years with The Foxboro Company, where his most recent positions were President Worldwide Operations from 1996 to 1998 and President of European Operations from 1990 to 1996. Mr. Robinson is also a director of our company.

Walter A. Shephard – age 53 – Vice President, Finance, Chief Financial Officer, and Treasurer

Mr. Shephard has served as Vice President, Finance, Chief Financial Officer, and Treasurer since February 2004. Previously, he was a Principal with the Loftus Group, LLC, a management consulting firm, from November 2002 to January 2004. From 1983 to 2001, Mr. Shephard served in various capacities with GenRad, Inc., including Vice President Finance and Chief Financial Officer, Vice President of Investor Relations, and Treasurer.

James R. Northup – age 46 – President Metrology Solutions Division

Mr. Northup joined our company in October 2006 and has served as President, Metrology Solutions Division since December 2006. Previously, he served as Executive Vice President of Sales and Marketing and then Chief Operating Officer for Toppan Photomasks, Inc. (formerly DuPont Photomasks), a worldwide manufacturer of photomasks used in the manufacture of integrated circuits, from January 2002 to July 2006. From July 2000 to January 2002, he served as a consultant and as CEO of Gray Scale Technologies, a start-up company specializing in thin film technology serving the semiconductor industry. From April 1990 to July 2000, he held various management positions at Photronics, most recently as President.

John M. Stack – age 42 – President Optical Solutions Division

Mr. Stack joined our company in November 2006 and has served as President of the Optical Systems Division since December 2006. Previously he spent 18 years with Edmund Optics Inc., a supplier of optics and optical components, where his most recent position was President and Chief Operating Officer from 2001 to 2006. Prior to that Mr. Stack held several management positions at Edmund Optics Inc. including Executive Vice President, Director of Engineering and Application Engineering Manager.

Douglas J. Eccleston – age 58 – Senior Vice President, Precision Positioning Systems

Mr. Eccleston has served as Senior Vice President, Precision Positioning Systems since February 2007 and as Vice President, Precision Positioning Systems since from March 2003 to January 2007. Previously, from 1977 to 2002, he held various management positions with Corning Incorporated, including most recently as a Business General Manager for the Photonic Technologies division.

Brian J. Monti – age 51 – Senior Vice President, Display Solutions

Mr. Monti has served as Senior Vice President, Display Solutions since February 2007. Previously, he served as Vice President, Worldwide Sales and Marketing from July 1999 to January 2007, Vice President, Sales, Service and Marketing for Radiometric Corporation from 1998 to 1999. From 1984 to 1998, Mr. Monti held various positions for Honeywell Measurex including Vice President, Sales, Service and Marketing.

Carl A. Zanoni – age 66 – Senior Vice President, Technology

Dr. Zanoni has served as Senior Vice President, Technology since November 2001. Previously, he served as our Vice President, Technology from June 1998 to November 2001, and Vice President, Research, Development and Engineering from April 1992 to June 1998. Dr. Zanoni is a co-founder of our company and is also a director.

William H. Bacon – age 57 – Vice President, Corporate Quality and Support Services

Mr. Bacon has served as Vice President, Corporate Quality and Support Services since March 2003. Previously, he served as our Vice President, Manufacturing from April 2002 to March 2003, Vice President, Metrology Manufacturing from April 2000 to April 2002, and Vice President, Corporate Quality from January 1996 to April 2000. From November 1993 to January 1996, Mr. Bacon was Director of Total Quality and also served as Manager of Instrument Manufacturing from June 1987 to November 1993.

David J. Person – age 59 – Vice President, Human Resources

Mr. Person has served as Vice President, Human Resources since September 1998. Previously, he served in a number of senior human resource management positions with Digital Equipment Corporation from 1972 to September 1998.

Under the By-laws, executive officers serve for a term of one year and until their successors are chosen and qualified unless earlier removed.

Item 1A. Risk Factors

We are subject to numerous known and unknown risks, many of which are described below and elsewhere in this Annual Report. Any of the events described below could have a material adverse effect on our business, financial condition and results of operations. Additional risks and uncertainties that we are not aware of, or that we currently deem to be immaterial, could also impact our business and results of operations.

We are dependent on the semiconductor industry, which, as a whole, is volatile.

Our business is significantly dependent on capital expenditures and component requirements for manufacturers in the semiconductor industry. This industry is cyclical and has historically experienced periods of oversupply, resulting in significantly reduced demand for capital equipment, including the products manufactured and marketed by us. For the foreseeable future, our operations will continue to be dependent on the capital expenditures in this industry, which in turn is largely dependent on the market demand in the semiconductor markets.

We have been dependent on sales to one large customer; the loss of this customer or expected near-term reduction in orders from this customer would materially affect our sales.

During fiscal 2007, 2006, and 2005, sales to Canon, our largest customer in those periods, accounted for 27%, 36%, and 37% of our net sales, respectively. We expect that sales to Canon will continue to represent a significant, yet declining, percentage of our net sales for the near future. Canon is an original investor in our company, the owner at June 30, 2007 of approximately 7% of our outstanding shares of common stock, and is a distributor of certain of our products in the Japanese market. A reduction or delay in orders from this customer, including reductions or delays due to market, economic, or competitive conditions in the industries in which we or our customer serves, could have a material adverse effect upon our results of operations. Our customers, including Canon, generally do not enter into long-term agreements obligating them to purchase our products.

We have generated significant revenues from development agreements which have been completed this year and we may not be able to replace those revenues.

During fiscal 2007, 2006, and 2005, we recorded revenues from development services of \$4.1 million, \$20.0 million, and \$15.6 million, respectively. The existing development service agreements were completed in fiscal 2007. Presently, we have no plans and know of no plans from our customers that would continue our development services revenue in fiscal 2008. To the extent that we are unable to replace these revenues with revenues from another source, our earnings could be adversely affected.

Our substantial international sales are subject to risk.

We sell our products internationally, primarily to customers in Japan and throughout the Pacific Rim. Net sales to customers outside the United States accounted for approximately 61%, 65%, and 66% of our net sales in each of the fiscal years ended June 30, 2007, 2006, and 2005, respectively, and are expected to continue to account for a substantial percentage of our net sales.

International sales and foreign operations are subject to inherent risks. These risks include the economic conditions in these various foreign countries and their trading partners, political instability, longer payment cycles, greater difficulty in accounts receivable collection, compliance with foreign laws, changes in regulatory requirements, tariffs or other barriers, difficulties in obtaining export licenses, staffing and managing foreign operations, exposure to currency exchange fluctuations, transportation delays, and potentially adverse tax consequences.

Our sales and costs are negotiated and paid primarily in U.S. dollars. However, changes in the values of foreign currencies relative to the value of the U.S. dollar can render our products comparatively more expensive to the extent locally produced alternative products are available. Such conditions could negatively affect international sales of our products and foreign operations, as would changes in the general economic conditions in those markets. For our sales that are based in local currency, we are exposed to foreign exchange fluctuations from the time customers are invoiced in local currency until collection occurs. For fiscal 2007, approximately

21% of our sales were denominated in foreign currencies. In the third quarter of fiscal 2005, we began hedging certain intercompany transactions by entering into forward contracts to reduce the impact of adverse fluctuations on earnings associated with foreign currency exchange rate changes. We do not enter into any derivative transactions for speculative purposes. These contracts are entered into for periods consistent with the currency transaction exposures, generally three to six months. Generally, any gains and losses on the fair value of these contracts are expected to be largely offset by gains and losses on the underlying transactions. There can be no assurance that risks inherent in international sales and foreign operations will not have a material adverse effect on our results of operations in the future.

Future acquisitions may entail certain operational and financial risks.

Our growth strategy includes expanding our products and services, and we may seek acquisitions to strategically expand our business. We regularly review potential acquisitions of businesses, technologies, or products complementary to our business and periodically engage in discussions regarding such possible acquisitions. Acquisitions involve numerous risks, including some or all of the following: substantial cash expenditures and capital investments; potentially dilutive issuance of equity securities; incurrence of debt and contingent liabilities; amortization of certain intangible assets; difficulties in assimilating the operations and products of the acquired companies; diverting our management's attention away from other business concerns; risks of entering markets in which we have limited or no direct experience; the inability to manage the growth expected for various acquisitions; potential loss of key employees of the acquired companies in the process of integrating personnel with disparate business backgrounds; and combining different corporate cultures.

We cannot assure you that any acquisition will result in long-term benefits to us or that our management will be able to effectively manage the acquired businesses. We may also incorrectly judge the value or worth of an acquired company or business. We have in the past disposed or divested ourselves of several companies or lines of business that previously were acquired by us, at a significant net loss to us.

Our quarterly operating results fluctuate and may continue to fluctuate in the future.

Our quarterly and annual operating results have varied in the past and may vary significantly in the future depending on factors such as: budgeting cycles of our customers; the size, timing, and recognition of revenue from significant orders; increased competition; our ability to develop innovative products; the timing of new product releases by us or our competitors; market acceptance of our products; changes in our and our competitors' pricing policies; changes in operating expenses and personnel changes; the effect of our acquisitions and consequent integration; changes in our business strategy; and general economic factors.

Due to these and other factors, we believe that quarter-to-quarter comparisons of our operating results may not be meaningful. You should not rely on our results for one quarter as any indication of our future performance. In future periods, our operating results may be below the expectations of public market analysts or investors. If this occurs, the price of our common stock would likely decrease.

Current conditions in the domestic and global economies are extremely uncertain. As a result, it is difficult to estimate the level of growth for the economy as a whole or of capital expenditures in the semiconductor and industrial markets. Because all of the components of our budgeting and forecasting are dependent on estimates of spending within these markets, the prevailing economic uncertainty renders estimates of future revenue and expenses even more difficult than usual to make.

Our scheduled backlog may not result in future sales.

We schedule the production of our systems based in part upon order backlog. Due to possible customer changes in delivery schedules and cancellations of orders, our backlog at any particular date is not necessarily indicative of actual sales for any succeeding period. There can be no assurance that amounts included in our backlog will ultimately result in future sales. We have experienced push-outs and cancellations in the semiconductor capital equipment sector. A reduction in backlog during any particular period, or the failure of our backlog to result in future sales could adversely affect our results of operations.

Our lengthy sales cycle could affect our manufacturing schedule and cause us to incur expenses without realizing sales.

Our lengthy and variable qualification and sales cycle makes it difficult to predict the timing of a sale or whether a sale will be made, which may cause us to have excess manufacturing capacity or inventory and negatively affect our operating results. As is typical in the industry, our customers generally expend significant efforts in evaluating and qualifying our products and manufacturing process. This evaluation and qualification process frequently results in a lengthy sales cycle, typically ranging from three to six months and sometimes longer. While our customers are evaluating our products and before they place an order with us, we may incur substantial sales, marketing, and research and development expenses, expend significant management efforts, increase manufacturing capacity and order long-lead-time supplies prior to receiving an order. Even after this evaluation process, it is possible that a potential customer will not purchase our products. In addition, product purchases are frequently subject to unplanned processing and other delays, particularly with respect to larger customers for which our products represent a very small percentage of their overall purchase activity.

If we increase capacity and order supplies in anticipation of an order that does not materialize, our gross margins may be negatively impacted, and we may have to carry or write off excess inventory. Even if we receive an order, the additional manufacturing capacity that we add to service the customer's requirements may be underutilized in a subsequent quarter. Either situation could cause our results of operations to be adversely affected. Our long sales cycles also may cause our revenues and operating results to vary significantly and unexpectedly from quarter to quarter.

We face risks associated with manufacturing forecasts.

If we fail to predict our manufacturing requirements accurately, we could incur additional costs or experience manufacturing delays, which could cause us to lose orders or customers and result in lower net sales. We currently use a rolling 12-month forecast based primarily on our anticipated product orders and our product order history to help determine our requirements for components and materials. It is very important that we accurately predict both the demand for our products and the lead-time required to obtain the necessary components and raw materials. Lead times for materials and components that we order vary significantly and depend on factors such as the specific supplier, the size of the order, contract terms, and demand for each component at a given time. If we underestimate our requirements, we may have inadequate manufacturing capacity or inventory, which could interrupt manufacturing of our products and result in delays in shipments and net sales. If we overestimate our requirements, we could have excess inventory of parts. In addition, delays in the manufacturing of our products could cause us to lose orders or customers.

Our stock price may fluctuate significantly due to a variety of risks.

We believe that factors such as the announcement of new products or technologies by us or our competitors, market conditions in the semiconductor and industrial markets, and quarterly fluctuations in financial results are expected to cause the market price of our common stock to vary substantially. Further, our net sales or results of operations in future quarters may be below the expectations of public market securities analysts and investors. In such event, the price of the common stock would likely decline. In addition, historically the stock market has experienced price and volume fluctuations that have particularly affected the market prices for many high technology companies and which often have been unrelated to the operating performance of such companies. The market volatility may adversely affect the market price of shares of our common stock. Furthermore, our common stock trading price may be more susceptible to market fluctuations due to the relatively small public float and trading volume of our stock.

We operate in a highly competitive industry.

We face competition from a number of companies in all our markets, many of which have greater manufacturing and marketing capabilities, and greater financial, technological, and personnel resources. In addition, we compete with the internal development efforts of our current and prospective customers, some of which may attempt to become vertically integrated. Our competitors can be expected to continue to improve the design and performance of their products and to introduce new products with competitive price/performance

characteristics. Competitive pressures may necessitate price reductions, which can adversely affect results of operations. Although we believe that we have certain technical and other advantages over some of our competitors, maintaining such advantages will require a continued high level of investment by our company in research and development and sales, marketing, and service. There can be no assurance that we will have sufficient resources to continue to make such investments or that we will be able to make the technological advances necessary to maintain such competitive advantages. In addition, due to historical relationships and possible prior investments by potential customers in competitive product lines, it may be more difficult for us to realize upon certain of our growth strategies and initiatives. There can be no assurance that the basis of competition in the industries in which we compete will not shift.

Our inability to anticipate and keep pace with rapidly changing technological developments in the markets in which we operate could have a material adverse effect on our business.

The market for our products is characterized by rapidly changing technology. Our future success will continue to depend upon our ability to enhance our current products and to develop and introduce new products that keep pace with technological developments and evolving industry standards, respond to changes in customer requirements, and achieve market acceptance. The development of new technologically advanced products is a complex and uncertain process requiring high levels of innovation, as well as the accurate anticipation of technological and market trends.

We commit significant financial and personnel resources on a continuous basis to redesign and enhance our instruments, systems, and components and upgrade our proprietary software technology incorporated in our products. Any failure by us to anticipate or respond adequately to technological developments and customer requirements, or any significant delays in product development or introduction, could have a material adverse effect on our business and impact our close relationships with customers. This could have an impact on customers' willingness to share proprietary information about their requirements and participate in collaborative efforts with us. There can be no assurance that our customers will continue to provide us with timely access to such information, that we will be successful in developing and marketing new products and services or product and service enhancements on a timely basis, or respond effectively to technological changes or new product announcements by others. In addition, there can be no assurance the new products and services or product enhancements, if any, which we developed will achieve market acceptance.

We may be unable to enforce or defend our ownership and use of proprietary technology.

Our success is heavily dependent upon our proprietary technology. There can be no assurance that the steps taken by us to protect our proprietary technology will be adequate to prevent misappropriation of our technology by third parties or will be adequate under the laws of some foreign countries, which may not protect our proprietary rights to the same extent as do laws of the United States. In addition, there remains the possibility that others will "reverse engineer" our products in order to determine their method of operation and introduce competing products or that others will develop competing technology independently. Any such adverse circumstances could have a material adverse effect on our results of operations.

Our business depends on management and technical personnel who are in great demand.

Our success depends in large part upon the continued services of many of our highly skilled personnel involved in management, research, development and engineering, sales and marketing, manufacturing, and support and upon our ability to attract and retain additional highly qualified employees. Our employees may voluntarily terminate their employment with us at any time. Competition for these individuals from a variety of employers, including our competitors and companies in computer or technology-related industries, at times is intense. We cannot assure you that we will be able to retain our existing personnel or attract and retain additional personnel.

We are exposed to significant delays and additional costs if we do not receive adequate or timely supplies of raw materials and other supplies upon which we depend.

We are dependent on suppliers for raw materials and various electrical, mechanical, and optical supplies. Although we enter, either directly or through our contract manufacturers, into purchase orders with our suppliers

based on our forecasts, we do not have any guaranteed supply arrangements with these suppliers. Moreover, as our demand for supplies increases, we may not be able to obtain these supplies in a timely manner. If any relationship with a key supplier is terminated or if a supplier fails or is unable to provide reliable services or equipment and we are unable to reach suitable alternative solutions quickly, we may experience significant delays and additional costs in the manufacturing of our products. If our key suppliers cease manufacturing the supplies we require, if their manufacturing operations are interrupted for any significant amount of time, or if they are unable or unwilling to supply us for any other reason, including capacity constraints, then we may be at least temporarily unable to obtain these supplies, thus exposing us to significant delays and additional costs. Currently there are only a limited number of companies that are capable of supplying optical materials in the quantity and of the quality we require.

We recently began to assemble our FPD systems in Taiwan through a third party. We are dependent on the third party to assemble the systems accurately and on a timely basis. To the extent the quality of work, including any individual unit, causes delays or cancellations in shipments to our customers, our results could be adversely affected.

Our products may contain defects that are undetected until after our products are installed which may lead to a loss of reputation and customers.

Our products are deployed in large and complex systems and may contain defects that are not detected until after our products have been installed, which could damage our reputation and cause us to lose customers. We design some of our products for deployment in large and complex optical networks. Because of the nature of these products, they can only be fully tested for reliability when deployed in networks for long periods of time. Our customers may discover defects in our products only after they have been fully deployed and operated under peak stress conditions. In addition, our products are combined with products from other vendors. As a result, should problems occur, it might be difficult to identify the source of the problem. These conditions increase the risk that we could experience, among other things: loss of customers; damage to our brand reputation; failure to attract new customers or achieve market acceptance; diversion of development and engineering resources; and legal actions by our customers. The occurrence of any one or more of the foregoing factors could cause us to experience losses, incur liabilities, and cause our net sales to decline.

We may be unprepared for changes to environmental laws and regulations and may have liabilities arising from environmental matters.

Environmental regulations applicable to our manufacturing operations could limit our ability to expand or subject us to substantial costs. We are subject to a variety of environmental regulations relating to the use, storage, discharge, and disposal of hazardous chemicals used during our manufacturing processes. Any failure by us to comply with present and future regulations could subject us to future liabilities or the suspension of production. In addition, such regulations could restrict our ability to expand our facilities or could require us to acquire costly equipment or to incur other significant expenses to comply with environmental regulations.

Our investments in marketable securities may lose their value if economic conditions were to deteriorate.

Our marketable securities represent approximately 25% of our total assets. To the extent credit markets tighten, interest rates increase, or other economic conditions influence the liquidity of our marketable securities, the value and liquidity of our marketable securities may be adversely affected. In addition, we may have to record an impairment charge for marketable securities if we determine that a permanent decline in the fair value of a marketable security has taken place.

Item 1B. Unresolved Staff Comments

We have received no written comments regarding our periodic or current reports from the staff of the SEC that were issued 180 days or more preceding the end of our fiscal year 2007 that remain unresolved.

Item 2. Properties

We own our principal manufacturing facility and corporate headquarters, which is located on Laurel Brook Road in Middlefield, Connecticut. This facility consists of one 153,500-square-foot building on approximately 13 acres. The following table sets forth information with respect to our facilities which are used by both of our operating segments, except as identified otherwise below:

<u>Operation/Location</u>	<u>Square Footage</u>		<u>Owned / Leased Expiration Date</u>
	<u>Manufacturing</u>	<u>Total</u>	
Corporate Headquarters, Eastern Regional Sales Office, and Metrology and Optics Manufacturing			
Middlefield, Connecticut	89,000	153,500	Owned
Zygo - Optical Systems			
Tucson, Arizona	14,560	22,560	Leased - 08/31/11
Flat Panel Display Metrology Engineering & Manufacturing			
Delray Beach, Florida	4,286	10,323	Leased - 06/30/09
Zygo - Optical Systems			
Costa Mesa, California	0	13,714	Leased - 10/18/07
Western Regional Sales Office and R&D Center			
Sunnyvale, California	0	7,390	Leased - 10/31/08
Semiconductor Process Metrology Office			
Beaverton, Oregon	0	2,496	Leased - 10/01/07
Zygo - Laser Technology Metrology (R&D)			
Watsonville, California	0	1,452	Leased - 04/14/08
Office			
Franklin, Massachusetts	0	400	Leased - 06/30/08
Zygo PTE Ltd			
Singapore	0	803	Leased - 01/14/10
Zygo Taiwan			
Sales Office	0	3,961	Leased - 12/31/08
Service Office	0	2,772	Leased - 04/30/08
ZygoLOT			
Germany	0	3,702	Leased - 10/01/07
Zygo KK			
Japan	0	1,053	Leased - 01/31/09
Zygo China			
China	0	1,610	Leased - 08/15/07
Zygo Korea			
Korea	0	1,507	Leased - 04/12/09
Total	<u>107,846</u>	<u>227,243</u>	

Item 3. Legal Proceedings

From time to time, we are subject to certain legal proceedings and claims that arise in the normal course of our business. In the opinion of management, we are not party to any litigation that we believe could have a material effect on our business.

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

None.

PART II

Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our shares of common stock are traded over-the-counter and are quoted on the NASDAQ/National Market under the symbol "ZIGO." The following table provides information about the high and low sales prices of the Company's common stock by quarter for fiscal 2007 and 2006.

	<u>Fiscal Year Ended June 30, 2007</u>		<u>Fiscal Year Ended June 30, 2006</u>	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
First quarter	\$17.21	\$12.34	\$15.72	\$ 9.65
Second quarter	\$17.35	\$12.16	\$16.44	\$12.95
Third quarter	\$17.00	\$14.83	\$18.83	\$13.93
Fourth quarter	\$16.55	\$14.20	\$19.75	\$14.05

These over-the-counter market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not necessarily represent actual transactions.

The number of record holders of our common stock at September 4, 2007 was 603. Our closing stock price as of June 30, 2007 was \$14.29.

We have never declared or paid a cash dividend on our capital stock and do not anticipate paying any cash dividends in the foreseeable future.

We at times grant restricted stock awards. These awards generally allow recipients to sell a portion of the stock award back to us, in order to cover tax liabilities resulting from the award. In fiscal 2007, at the election of various employees, we made the following repurchases of restricted stock.

<u>Period</u>	<u>Total number of shares purchased</u>	<u>Average price paid per share</u>
July 1, 2006 - September 30, 2006	—	\$ 0.00
October 1, 2006 - December 31, 2006	—	\$ 0.00
January 1, 2007 - March 31, 2007	2,654	\$15.19
April 1, 2007 - June 30, 2007	427	\$15.12

Restricted stock repurchases in the fourth quarter of fiscal year 2007 were as follows:

<u>Period</u>	<u>Total number of shares purchased</u>	<u>Average price paid per share</u>	<u>Total number of shares purchased as part of publicly announced plans or programs</u>	<u>Approximate dollar value of shares that may yet be purchased under the plans or programs (in millions)</u>
April 1, 2007 - April 30, 2007	—	\$ 0.00	—	—
May 1, 2007 - May 31, 2007	—	\$ 0.00	—	—
June 1, 2007 - June 30, 2007	427	\$15.12	—	—

As previously announced, in August 2007, our Board of Directors authorized the repurchase of up to \$25.0 million of our outstanding common stock. The repurchases will occur from time to time as market conditions warrant through transactions in the open market. The initial share repurchases are expected to be effected pursuant to a plan in conformity with Rule 10b5-1 under the Securities Exchange Act of 1934. This rule allows public companies to adopt written, pre-arranged stock trading plans when they do not have material, non-public information in their possession. The adoption of this stock trading plan allows us to repurchase our shares during periods when we otherwise might be prevented from doing so under insider trading laws or because of self-imposed trading blackout periods.

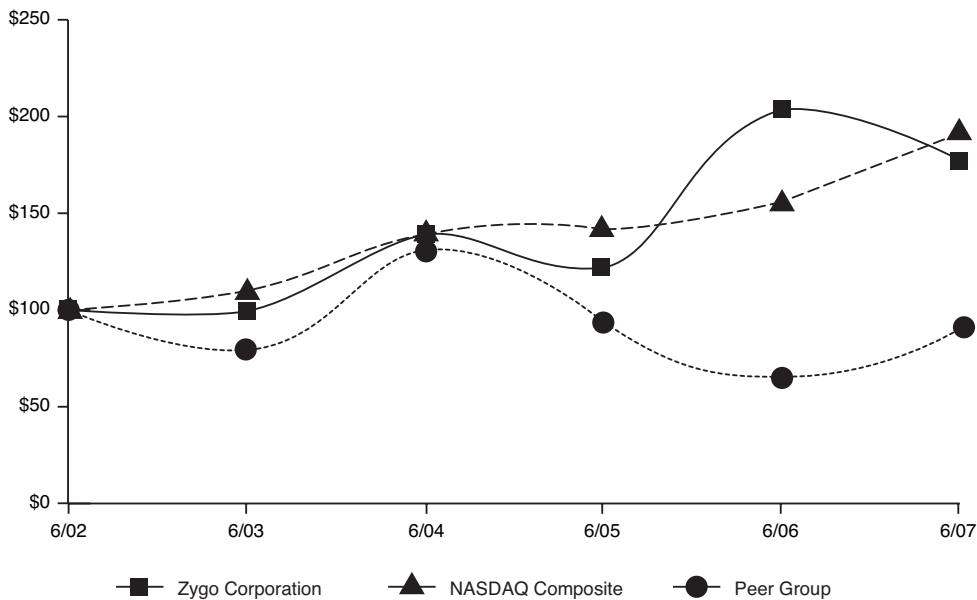
PERFORMANCE GRAPH

The Stock Price Performance graph below and related information shall not be deemed soliciting material or to be "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any filing under the Securities Act of 1933, as amended, or under the Securities Exchange Act of 1934, as amended, except to the extent ZYGO specifically incorporates this information by reference.

The graph below compares cumulative total return of our common stock with the cumulative total return of (i) the Nasdaq National Market—U.S. Index, and (ii) a group of peer companies weighted to reflect differing market capitalizations. Companies in the peer group are Nanometrics, Inc., Rudolph Technologies, Inc., Veeco Instruments, Inc., II-VI, Incorporated, Mattson Technology, Inc., Semitool, Inc., Photon Dynamics, Inc., Electro Scientific Industries, Inc., GSI Group Inc., and Ultratech, Inc. The peer group consists of issuers selected primarily based on market capitalization and the markets they serve.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Zygo Corporation, The NASDAQ Composite Index And A Peer Group



* \$100 invested on 6/30/02 in stock or index-including reinvestment of dividends.
Fiscal year ending June 30.

	<u>06/30/02</u>	<u>06/30/03</u>	<u>06/30/04</u>	<u>06/30/05</u>	<u>06/30/06</u>	<u>06/30/07</u>
ZYGO CORPORATION	100.00	99.38	139.01	121.74	203.60	177.52
NASDAQ COMPOSITE	100.00	109.91	139.04	141.74	155.82	191.32
PEER GROUP	100.00	79.34	130.92	94.01	95.56	90.27

Item 6. Selected Financial Data

The financial data set forth below should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operation” and with our Consolidated Financial Statements and notes thereto included elsewhere in this Form 10-K.

(Thousands, except for per share and ratio amounts)

	Fiscal Year Ended June 30,				
	2007	2006	2005	2004	2003
Net sales	\$180,988	\$168,137	\$141,349	\$116,276	\$102,221
Gross profit	\$77,183	\$65,771	\$53,290	\$42,680	\$35,069
% of sales	43%	39%	38%	37%	34%
Earnings from continuing operations ..	\$15,142	\$14,485	\$9,350	\$4,226	\$1,363
% of sales	8%	9%	7%	4%	1%
Earnings per share from continuing operations:					
Basic	\$0.83	\$0.80	\$0.52	\$0.24	\$0.08
Diluted	\$0.81	\$0.79	\$0.52	\$0.23	\$0.08
Net earnings (loss)	\$15,142	\$14,485	\$8,984	(\$3,429)	(\$10,782)
Net earnings (loss) per share:					
Basic	\$0.83	\$0.80	\$0.50	(\$0.19)	(\$0.61)
Diluted	\$0.81	\$0.79	\$0.50	(\$0.19)	(\$0.61)
Weighted average number of shares:					
Basic	18,156	18,054	17,950	17,802	17,539
Diluted	18,601	18,367	18,140	18,221	17,696
Research, development, and engineering	\$22,038	\$15,901	\$13,377	\$13,011	\$12,659
Capital expenditures	\$10,149	\$7,441	\$9,987	\$7,585	\$5,037
Depreciation and amortization	\$6,519	\$6,214	\$5,880	\$5,717	\$5,623
	June 30,				
	2007	2006	2005	2004	2003
Working capital	\$107,834	\$81,914	\$63,379	\$58,504	\$66,920
Current ratio	4.3	2.8	2.3	3.5	3.3
Total assets	\$211,594	\$206,183	\$190,182	\$156,133	\$161,546
Long-term debt (including current portion)	\$ —	\$ —	\$ —	\$ —	\$11,374
Stockholders’ equity	\$177,777	\$158,938	\$141,153	\$131,352	\$130,403
Price-earnings ratio	18	21	20	N/A	N/A
Number of employees at year-end	575	570	526	476	477
Sales per employee – average	\$315	\$295	\$269	\$244	\$214
Book value per share	\$9.75	\$8.78	\$7.85	\$7.34	\$7.41
Market price per share at year-end	\$14.29	\$16.39	\$9.80	\$11.19	\$8.00

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operation

CRITICAL ACCOUNTING POLICIES, SIGNIFICANT JUDGMENTS, AND ESTIMATES

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses, and related disclosures at the date of our consolidated financial statements. On an on-going basis, management evaluates its estimates and judgments, including those related to bad debts, inventories, marketable securities, share-based compensation, warranty obligations, self-insured healthcare claims, income taxes, and long-lived assets. Management bases its estimates and judgments on historical experience and current market conditions and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We consider certain accounting policies related to revenue recognition and allowance for doubtful accounts, inventory valuation, valuation of marketable securities, share-based compensation, warranty costs, self-insured health insurance costs, accounting for income taxes, and valuation of long-lived assets to be critical policies due to the estimates and judgments involved in each.

Revenue Recognition and Allowance for Doubtful Accounts

We recognize revenue based on guidance provided in SEC Staff Accounting Bulletin (“SAB”) No. 104, “Revenue Recognition” and in accordance with the Emerging Issues Task Force (“EITF”) Issue No. 00-21, “Revenue Arrangements with Multiple Deliverables.” We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, our price is fixed or determinable, and collectibility is reasonably assured. We recognize revenue on our standard products when title passes to the customer upon shipment. While our standard products generally require installation, the installation is considered a perfunctory performance obligation. Standard products do not have customer acceptance criteria. Generally, software is a component of our standard product and, as such, is not separately recognized as revenue. We have standard rights of return that we account for as a warranty provision under Statement of Financial Accounting Standards (“SFAS”) No. 5, “Accounting for Contingencies.” We do not have any price protection agreements or other post shipment obligations. For custom equipment where customer acceptance is part of the sales agreement, revenue is recognized when the customer has accepted the product. In cases where custom equipment does not have customer acceptance as part of the sales agreement, we recognize revenue upon shipment as long as the system meets the specifications as agreed upon with the customer. Certain transactions have multiple deliverables, with the deliverables clearly defined. To the extent that the secondary deliverables are other than perfunctory, we recognize the revenue on each deliverable, if separable, or on the completion of all deliverables, if not separable, all in a manner consistent with SAB No. 104 and EITF 00-21. Standalone software products are recognized as revenue when they are shipped. Revenue generated from development contracts are recorded on a cost-plus basis in the period services are rendered.

We maintain an allowance for doubtful accounts based on a continuous review of customer accounts, payment patterns, and specific collection issues. We perform on-going credit evaluations of our customers and do not require collateral from our customers. For many of our international customers, we require an irrevocable letter of credit from our customer before a shipment is made. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances would be required.

Inventory Valuation

Inventories are valued at the lower of cost or market, cost being determined on a first-in, first-out basis. Management evaluates the need to record adjustments for impairment of inventory on a monthly basis. Our policy is to assess the valuation of all inventories, including raw materials, work-in-process, and finished goods. Obsolete inventory or inventory in excess of management’s estimated future usage is written down to its

estimated market value, if less than its cost. Contracts with fixed prices are evaluated to determine if estimated total costs will exceed revenues. A loss provision is recorded when the judgment is made that actual costs incurred plus estimated costs remaining to be incurred based on management's estimates will exceed total revenues from the contract. Inherent in the estimates of market value are management's estimates related to current economic trends, future demand for our products, and technological obsolescence. Management estimates future product sales and service requirements, and evaluates technological changes and other possible uses to determine if inventory is excess or obsolete. If actual market conditions are different than those projected by management, additional inventory write-downs and loss accruals may be required.

Other Than Temporary Impairment of Marketable Securities

Marketable securities have been classified as held-to-maturity, which requires them to be carried at amortized cost. Management evaluates the need to record adjustments for impairment of marketable securities on a quarterly basis. Marketable securities with unrealized depreciation in fair value for twelve or more consecutive months and other securities with unrealized losses are reviewed to determine whether the decline in fair value is other than temporary. Investment ratings, company-specific events, general economic conditions, and other reasons are evaluated in determining if the decline in fair value is other than temporary. If it is judged that a decline in fair value is other than temporary, the marketable security is valued at the current fair value and an impairment charge is reflected in earnings.

Share-Based Compensation

We calculate share-based compensation expense in accordance with SFAS 123(R), "Share-Based Payment (as amended)" using the Black-Scholes option-pricing model to calculate the fair value of share-based awards. The key assumptions for this valuation method include the expected term of an option grant, stock price volatility, risk-free interest rate, dividend yield, and forfeiture rate. The determination of these assumptions is based on past history and future expectations, and is subject to a high level of judgment. To the extent any of the assumptions were to change from year to year, the fair value of new option grants may vary significantly.

Warranty Costs

We provide for the estimated cost of product warranties at the time revenue is recognized. We consider historical warranty costs actually incurred and specifically identified circumstances to establish the warranty liability. The warranty liability is reviewed on a quarterly basis. Should actual costs differ from management's estimates, revisions to the estimated warranty liability would be required. A one percent change in actual costs would have an impact of approximately \$20,000 on our financial condition and results of operations.

Accounting for Income Taxes

Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective income tax bases, and operating loss and tax credit carryforwards. SFAS No. 109, "Accounting for Income Taxes," requires the establishment of a valuation allowance to reflect the likelihood of the realization of deferred tax assets. We record a valuation allowance to reduce our deferred tax assets to an estimated realizable amount based on historical and forecasted results. While management has considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance, in the event management were to determine that it would be able to realize its deferred tax assets in the future in excess of its net recorded amount, an adjustment to the valuation allowance would increase income in the period such determination was made. Likewise, should management determine that it would not be able to realize all or part of its net deferred tax asset in the future, an adjustment to the valuation allowance would be charged to income in the period such determination was made. Our effective tax rate may vary from period to period based on changes to the valuation allowance, changes in pre-tax income between jurisdictions that have higher or lower tax rates, changes to federal, state, or foreign tax laws, and deductibility of certain costs and expenses by jurisdiction.

Valuation of Long-Lived Assets

In accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets," the carrying value of intangible assets and other long-lived assets is reviewed on a regular basis for the existence of facts or circumstances, both internally and externally, that may suggest impairment. Some factors we consider important, which could trigger the impairment review, include a significant decrease in the market value of an asset, a significant change in the extent or manner in which an asset is used, a significant adverse change in the business climate that could affect the value of an asset, an accumulation of costs for an asset in excess of the amount originally expected, a current period operating loss or cash flow decline combined with a history of operating loss or cash flow uses or a projection that demonstrates continuing losses, and a current expectation that, it's more likely than not, a long-lived asset will be disposed of at a loss before the end of its estimated useful life.

If one or more of such facts or circumstances exist, we evaluate the carrying value of long-lived assets to determine if impairment exists based upon estimated undiscounted future cash flows over the remaining useful life of the assets and comparing that value to the carrying value of the assets. If the carrying value of the assets is greater than the estimated future cash flows, the assets are written down to the estimated fair value. We determine the estimated fair value of the assets based on a current market value of the assets. If a current market value is not readily available, a projected discounted cash flow method is applied using a discount rate determined by management to be commensurate with the risk inherent in the current business model. Our cash flow estimates contain management's best estimates, using appropriate and customary assumptions and projections at the time.

Health Insurance

We are self-insured for the majority of our group health insurance. We rely on claims experience in determining an adequate liability for claims incurred, but not reported. To the extent actual claims exceed estimates, we may be required to record additional expense. A one percent change in actual claims would have an impact of approximately \$25,000 on our financial condition and results of operations.

OVERVIEW

Zygo Corporation is a worldwide supplier of optical metrology instruments, precision optics, and electro-optical design and manufacturing services, serving customers in the semiconductor capital equipment and industrial markets. Optical instruments products encompass non-contact optical measurement instruments. Optics products consist of high performance macro-optics components, optical coatings, and optical system assemblies. We conduct the majority of our manufacturing in our 153,500 square foot facility in Middlefield, Connecticut and a 22,560 square foot leased facility in Tucson, Arizona.

During the second quarter of fiscal 2007, we reorganized the business into two operating divisions — Metrology Solutions Division (Metrology segment) and Optical Systems Division (Optics segment). Consistent with our new business structure, beginning with our second quarter in fiscal 2007 we reported our segments as Metrology and Optics. Prior to the second quarter of fiscal 2007, our segments were reported as Semiconductor and Industrial. The Metrology segment consists of OEM and in-line products primarily for the semiconductor and industrial markets. The Optics segment consists of components and opto-mechanical assemblies primarily for the medical, defense, and aerospace industries, which are included in the industrial market.

We believe that within the Metrology segment, the semiconductor market contains our best sales growth opportunities in the future. As such, we are focusing our research and development efforts on specific semiconductor initiatives, most notably in the display and packaging markets. During the past year, we continued to expand our office in Oregon which houses our semiconductor process metrology group to take advantage of opportunities in the semiconductor markets. In addition, during fiscal 2007, we built on the success of our front-end semiconductor metrology tool, the Z3D-7000™ by introducing the Z3D-7200™ and the UniFire™ 7900 to our in-fab semiconductor product portfolio.

Within our Optics segment, areas of growth continue to be in laser fusion optics and medical based products. In June 2007, our Tucson, Arizona, operation received ISO 13485:2003 certification for medical product

manufacturing. This certification reinforces our ongoing commitment to pursue manufacturing opportunities in the medical components market. The facility's quality system is also certified to ISO 9001:2000.

Over the past four years, development services for Canon Inc. have produced a significant amount of our revenue. However, our development services contract with Canon Inc. were completed during the third quarter of fiscal 2007. For fiscal 2007, increases in overall sales and new product sales growth, both overall and within our Metrology segment, offset the year over year decrease in the development services revenue.

Overall, sales to Canon Inc. and Canon Sales Co., Inc. (collectively, "Canon"), our single largest customer, represented 27% of our total net sales in fiscal 2007 as compared with 36% in fiscal 2006. This represented a decrease of \$13.3 million in sales in fiscal 2007 as compared with fiscal 2006, with the \$15.9 million decrease in development services revenue being partially offset by increases in OEM purchases.

Our backlog at June 30, 2007 was \$72.2 million, a decrease of \$8.6 million from June 30, 2006. Orders were \$36.1 million in the fourth quarter of fiscal 2007. Orders from the Company's Metrology segment accounted for 57% of the orders received, with the Optics segment accounting for the remaining 43%. For fiscal 2007, orders were \$172.5 million, a decrease of 5% over fiscal 2006. As we have previously disclosed, orders for our lithography OEM products have experienced a sharp decline and we anticipate that this will continue through the remainder of calendar 2007. We have also seen push-outs and cancellations in the semiconductor capital equipment sector. We further anticipate fiscal 2008 sales and earnings to be skewed toward the second half of the year when we believe we will see an increase in orders and shipments of semiconductor and display systems.

In August 2007, we announced that our Board of Directors authorized the repurchase of up to \$25.0 million of our outstanding common stock. The repurchases will occur from time to time as market conditions warrant through transactions in the open market. The initial share repurchases are expected to be effected pursuant to a plan in conformity with Rule 10b5-1 under the Securities Exchange Act of 1934. This rule allows public companies to adopt written, pre-arranged stock trading plans when they do not have material, non-public information in their possession. The adoption of this stock trading plan allows us to repurchase our shares during periods when we otherwise might be prevented from doing so under insider trading laws or because of self-imposed trading blackout periods.

RESULTS OF OPERATIONS

Fiscal 2007 Compared with Fiscal 2006

Net Sales

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2007	Net Sales %	June 30, 2006	Net Sales %
Segment				
Metrology	\$132.3	73%	\$125.9	75%
Optics	48.7	27%	42.2	25%
Total	\$181.0	100%	\$168.1	100%

Net sales in the Metrology segment increased 5% in fiscal 2007 as compared with the prior year. The increase in net sales of \$6.4 million within the Metrology segment was primarily due to an increase in display sales of \$10.0 million, net sales to our lithography customers of \$9.6 million, and semiconductor sales of \$2.7, partially offset by a decrease in development services revenue of \$15.9 million.

Net sales in the Optics segment increased 15% in fiscal 2007 as compared with the prior year. The increase in net sales of \$6.5 million within the Optics segment was primarily due to an increased volume of optical system assemblies of \$3.4 million and contract manufacturing of \$3.0, which includes medical component sales.

Approximately 79% of all fiscal 2007 net sales were denominated in U.S. dollars. Significant changes in the values of foreign currencies relative to the value of the U.S. dollar can influence the sales of our products in export markets, as would changes in the general economic conditions in those markets.

Gross Profit

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2007	Net Sales %	June 30, 2006	Net Sales %
Segment				
Metrology	\$62.2	47%	\$56.8	45%
Optics	15.0	31%	9.0	21%
Total	\$77.2	43%	\$65.8	39%

Gross profit in the Metrology segment as a percentage of net sales increased by two percentage points in fiscal 2007 as compared with the prior year. The increased gross profit as a percentage of net sales was primarily due to the decrease in development services revenues, which comprised 16% of Metrology revenue in fiscal 2006 and only 3% in fiscal 2007 and which has historically carried margins of 25%-30%. Gross profit in the Optics segment as a percentage of sales increased by ten percentage points for fiscal 2007 as compared with the prior year. This increase was primarily attributable to having a steady order flow within our contract manufacturing operation which increased our efficiency and productivity.

Selling, General, and Administrative Expenses (“SG&A”)

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2007	Net Sales %	June 30, 2006	Net Sales %
	\$32.9	18%	\$31.2	19%

SG&A in fiscal 2007 as compared with fiscal 2006 included increases in sales and marketing of \$1.9 million primarily due to increases in marketing activities of \$0.6 million for our semiconductor products and \$0.5 million for our optical systems solutions. We also incurred additional costs of \$0.6 million as we increased our presence throughout our foreign operations. Administration expenses decreased slightly by \$0.2 million.

Research, Development, and Engineering Expenses (“RD&E”)

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2007	Net Sales %	June 30, 2006	Net Sales %
	\$22.0	12%	\$15.9	9%

The increase in RD&E costs in fiscal 2007 was primarily related to increased spending on our semiconductor initiatives of \$3.1 million, display solutions of \$1.2 million, instrument projects of \$1.4 million, and contract manufacturing projects of \$0.6 million. Semiconductor RD&E contributed to the release, in fiscal 2007, of two new products, the Z3D-7200™ and the UniFire™ 7900. Display solution initiatives include developments of new technologies to further enhance our existing product line.

Income Tax Expense

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2007	Tax Rate %	June 30, 2006	Tax Rate %
	\$9.1	36%	\$5.8	28%

Income tax expense in fiscal 2007 increased by 57% as compared with the prior year. The overall tax rate increased by eight percentage points when compared with the prior year. In fiscal 2006, income tax expense included an aggregate tax benefit of \$1.2 million due primarily to the redetermination of our fiscal 2005 and 2004 extraterritorial income exclusion (“EIE”).

Net Earnings

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2007	Sales %	June 30, 2006	Sales %
	\$15.1	8%	\$14.5	9%

Net earnings in fiscal 2007 increased by 4% as compared with the prior year. Net earnings per diluted share were \$0.81 for fiscal 2007, as compared with \$0.79 per diluted share for fiscal 2006. Fiscal 2006 net earnings included a \$0.07 benefit for the effect of the EIE credit related to fiscal 2005 and 2004 of \$1.2 million. The increased earnings were primarily the result of increased net sales and increased gross profits as a percentage of sales which was partially offset by a \$6.1 million increase in RD&E to support our new initiatives.

Backlog

Backlog at June 30, 2007 totaled \$72.2 million, a decrease of \$8.6 million, or 11%, from \$80.8 million at June 30, 2006. The year-end fiscal 2007 backlog consisted of \$29.5 million, or 41%, in the Metrology segment and \$42.7 million, or 59%, in the Optics segment. Orders for fiscal 2007 totaled \$172.5 million. Orders by segment for fiscal 2007 consisted of \$116.4 million, or 67%, in the Metrology segment and \$56.1 million, or 33%, in the Optics segment. The decrease in backlog primarily reflects a sharp decline in our lithography OEM products and we anticipate that this trend will continue through the remainder of calendar 2007. We have also experienced push-outs and cancellations related to fiscal 2007 activity in the semiconductor capital equipment sector. We further anticipate fiscal 2008 sales and earnings to be skewed toward the second half of the year when we believe we will see a strengthening in orders and shipments of semiconductor and display systems.

Fiscal 2006 Compared with Fiscal 2005

Net Sales*

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2006	Net Sales %	June 30, 2005	Net Sales %
Segment				
Metrology	\$125.9	75%	\$104.4	74%
Optics	42.2	25%	36.9	26%
Total	\$168.1	100%	\$141.3	100%

Net sales in the Metrology segment increased 21% in fiscal 2006 as compared with the prior year. The increase in net sales of \$21.5 million within the Metrology segment was primarily due to an increase of product sales for the instruments and inline semiconductor tools of \$10.3 million, net sales to our lithography customers of \$6.5 million, and development services of \$4.4 million. We opened offices in China and Korea in fiscal 2006 and 2005 and have seen a steady increase in sales activity from those markets.

Net sales in the Optics segment increased 14% in fiscal 2006 as compared with the prior year. The increase in net sales of \$5.3 million within the Optics segment was primarily due to an increased volume of contract manufacturing of \$7.6 million, offset in part by a decrease in laser fusion optics of \$2.9 million in fiscal 2006 as compared with the prior period.

Approximately 82% of all fiscal 2006 net sales were denominated in U.S. dollars. Significant changes in the values of foreign currencies relative to the value of the U.S. dollar can influence the sales of our products in export markets, as would changes in the general economic conditions in those markets.

* Restated with new segment information. See Note 16 to consolidated financial statements.

Gross Profit*

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2006	Net Sales %	June 30, 2005	Net Sales %
Segment				
Metrology	\$56.8	45%	\$46.4	44%
Optics	9.0	21%	6.9	19%
Total	\$65.8	39%	\$53.3	38%

Gross profit in the Metrology segment as a percentage of net sales increased by a percentage point in fiscal 2006 as compared with the prior year. The increased gross profit as a percentage of net sales was primarily due to our concentrated effort to utilize new low-cost, high-quality vendors. Margins on development services remained flat year over year at 29%. Gross profit in the Optics segment as a percentage of sales increased by two percentage points in fiscal 2006 as compared with the prior year. The increased profit as a percentage of net sales was also primarily due to utilizing new low-cost, high-quality vendors. In fiscal 2006, share-based compensation expenses decreased overall gross profit by \$0.4 million.

* Restated with new segment information. See Note 16 to consolidated financial statements.

Selling, General, and Administrative Expenses (“SG&A”)

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2006	Net Sales %	June 30, 2005	Net Sales %
	\$31.2	19%	\$24.9	18%

SG&A in fiscal 2006 as compared with fiscal 2005 included increases in sales and marketing of \$2.8 million primarily due to increases in technical support and service personnel and increases in marketing activities in Japan and Korea, and in optical systems worldwide. In addition, employee benefits cost increased \$2.2 million and outside services increased \$0.4 million related to computer infrastructure costs. In fiscal 2006, share-based compensation expenses related to SG&A were \$1.0 million.

Research, Development, and Engineering Expenses (“RD&E”)

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2006	Net Sales %	June 30, 2005	Net Sales %
	\$15.9	9%	\$13.4	9%

RD&E costs in fiscal 2006 were primarily driven by semiconductor initiatives of \$1.5 million, metrology projects of \$1.4 million, and costs associated with the newly opened Oregon office of \$0.9 million. In fiscal 2006, share-based compensation expense related to RD&E was \$0.3 million.

Income Tax Expense

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2006	Tax Rate %	June 30, 2005	Tax Rate %
	\$5.8	28%	\$5.7	36%

Income tax expense in fiscal 2006 increased by 2% as compared with the prior year. The overall tax rate, however, decreased by eight percentage points when compared with the prior year primarily due to the redetermination of our fiscal 2005 and 2004 extraterritorial income exclusion (“EIE”). Due to this redetermination, the Company recorded an aggregate tax benefit of \$1.2 million in the current fiscal year, related to fiscal 2005 and 2004.

Net Earnings

<u>(Dollars in millions)</u>	Twelve Months Ended			
	June 30, 2006	Sales %	June 30, 2005	Sales %
	<u>\$14.5</u>	<u>9%</u>	<u>\$9.0</u>	<u>6%</u>

Net earnings in fiscal 2006 increased by 61% as compared with the prior year. Net earnings per diluted share were \$0.79 for fiscal 2006, as compared with \$0.50 per diluted share for fiscal 2005. The increased earnings were primarily the result of increased net sales, increased gross profits as a percentage of sales due in part to the effects of our cost control initiatives and the effect of the EIE credit related to fiscal 2005 and 2004. The net earnings for fiscal 2005 included losses of \$0.3 million, net of tax, related to the operations of our discontinued TeraOptix unit and charges of \$0.1 million, net of tax, related to the disposal of our discontinued TeraOptix unit. The charge related to the disposal of our discontinued TeraOptix unit was primarily due to the sale of our vacant facility in Westborough, Massachusetts in the third quarter of fiscal 2005. The earnings from continuing operations for fiscal 2006 were \$14.5 million, or \$0.79 per diluted share, as compared with earnings from continuing operations of \$9.4 million, or \$0.52 per diluted share, for fiscal 2005.

Backlog

Backlog at June 30, 2006 totaled \$80.8 million, an increase of \$14.2 million, or 21%, from \$66.6 million at June 30, 2005. The year-end fiscal 2006 backlog consisted of \$42.9 million, or 53%, in the semiconductor segment and \$37.9 million, or 47%, in the industrial segment. Orders for fiscal 2006 totaled \$182.3 million. Orders by segment for fiscal 2006 consisted of \$107.1 million, or 59%, in the semiconductor segment and \$75.2 million, or 41%, in the industrial segment. The increase in the backlog is reflective of strength across all segments especially lithography related orders.

TRANSACTIONS WITH STOCKHOLDER

Sales to Canon, a stockholder, customer, and distributor of certain of our products in Japan amounted to \$48.1 million (27% of net sales), \$61.4 million (36% of net sales), and \$51.9 million (37% of net sales) for the years ended June 30, 2007, 2006, and 2005, respectively. Selling prices of products sold to Canon are based, generally, on the normal terms customarily given to distributors. Revenues generated from a development contract with Canon are recorded on a cost-plus basis. At June 30, 2007 and 2006, there was in the aggregate, \$4.5 million and \$6.0 million, respectively, of trade accounts receivable from Canon.

In September 2002, we entered into a contract with Canon related to the development of certain interferometers. In March 2004, we signed a preliminary agreement to begin further add-on work; the definitive agreement for this additional work was signed in December 2004. In February 2005, we entered into two additional agreements with Canon related to the development of prototype production tools and accessories. During the twelve months ended June 30, 2007, we recognized revenue of \$4.1 million under the Canon development services contract compared with \$20.0 million for the comparable prior period. Our development services contract with Canon Inc. was completed during the third quarter of fiscal 2007.

LIQUIDITY AND CAPITAL RESOURCES

At June 30, 2007, cash and marketable securities was \$70.2 million, an increase of \$4.7 million from \$65.5 million at June 30, 2006. The increase in cash was primarily attributable to cash generated from our operating activities, partially offset by an increase in inventory and capital expenditures and a significant decrease in progress payments. This increase in inventory was primarily attributable to an increase in inventory for semiconductor systems and to a lesser extent, for certain other product lines.

Cash flows from operating activities were \$15.1 million for fiscal 2007 as compared with \$16.0 million in fiscal 2006. The decrease was primarily due to progress payments received in fiscal 2006 related to our development services agreements, flat panel systems, and optics contracts. In fiscal 2007, we utilized the progress payments in excess of new progress payments for flat panel systems and the end of the development services agreement.

Acquisitions of property, plant, and equipment were \$10.1 million in fiscal 2007 as compared with \$7.4 million for fiscal 2006. The increase was due primarily to the additional equipment for the manufacture and demonstration of the new semiconductor products, test equipment for increased efficiency, and tooling for the manufacture of new products.

There were no borrowings outstanding under our \$3.0 million bank line of credit agreement at June 30, 2007 and 2006. The agreement contains certain financial covenants which, among others, relate to debt service and consolidated debt ratios.

In August 2007, our Board of Directors approved a stock repurchase program of up to \$25.0 million. We expect the repurchase of the stock to be paid by the combination of current earnings and current cash and cash equivalent balances. Although cash requirements will fluctuate based on the timing and extent of various factors, management believes that cash generated from operations, together with the liquidity provided by existing cash balances and borrowing capability, will be sufficient to satisfy our liquidity requirements for the next 12 months.

CONTRACTUAL OBLIGATIONS

The following table summarizes our significant contractual obligations at June 30, 2007, and the effect such obligations are expected to have on our liquidity and cash flows in future periods.

	Payments Due By Period				
	(Dollars in millions)				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating leases	\$3.0	\$1.2	\$1.8	\$ -	\$ -
Purchase obligations	4.3	3.0	1.3	=	=
Total	<u>\$7.3</u>	<u>\$4.2</u>	<u>\$3.1</u>	<u>\$ -</u>	<u>\$ -</u>

OFF-BALANCE SHEET ARRANGEMENTS

We have not created, and are not party to, any special-purpose or off-balance sheet entities for the purpose of raising capital, incurring debt, or operating parts of our business that are not consolidated into our financial statements. We have not guaranteed any obligations of a third party.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The following discussion about our market risk involves forward-looking statements. Actual results could differ materially from those projected in the forward-looking statements. We are exposed to market risk related to changes in interest rates, changes in the investment grade of marketable securities, and foreign currency exchange rates. We do not use derivative financial instruments for speculative or trading purposes.

Interest Rate Sensitivity

We maintain a portfolio of cash equivalents and marketable securities including institutional money market funds (which may include commercial paper, certificates of deposit, and U.S. treasury securities), government agency securities, and corporate bonds. Our interest income is sensitive to changes in the general level of U.S. interest rates, particularly on our short-term instruments. The table below presents investment amounts and related weighted average interest rates by year of maturity for our investment portfolio.

Fair value of investments as of June 30, 2007 maturing in:
(Dollars in millions)

	2008	2009	2010	2011	2012	Thereafter
Marketable securities						
Fixed rate investments	\$29.3	\$14.7	\$8.1	\$ -	\$ -	\$ -
Weighted average interest rate . .	4.8%	4.8%	5.3%	0.0%	0.0%	0.0%

On June 30, 2007, the Company had variable interest rate money market accounts valued at \$9.1 million.

Marketable Securities Fair Market Value Sensitivity

At June 30, 2007, our investment portfolio included certain investments, aggregating \$1.6 million, in entities believed to have risk exposure in sub-prime markets. We have reviewed, along with our investment advisor, current investment ratings, company specific events, and general economic conditions in determining whether there is a significant decline in fair value that is other than temporary. To the extent we determine that a decline in fair value is other than temporary, the marketable security is valued at the current fair value and an impairment charge is reflected in earnings. In addition, if the investment grades of the securities decline, liquidity in the market may be restricted or the market value of the security may decline. There is the potential that, if credit limits tighten significantly, the issuer may not have access to the capital markets to pay off the securities at the time of maturity.

Exchange Rate Sensitivity

Approximately 79% of our fiscal 2007 net sales were denominated in U.S. dollars. At June 30, 2007, our backlog included orders in U.S. dollars of \$64.4 million, or 89% of the total backlog. Substantially all of our costs are negotiated and paid in U.S. dollars. Significant changes in the values of foreign currencies relative to the value of the U.S. dollar can impact sales of our products in export markets as would changes in the general economic conditions in those markets. For our sales that are based in local currency, we are exposed to foreign exchange fluctuations from the time customers are invoiced in local currency until collection occurs.

We enter into forward contracts to reduce the impact of adverse fluctuations on earnings associated with foreign currency exchange rate changes. We do not enter into any derivative transactions for speculative purposes. These contracts are entered into for periods consistent with the currency transaction exposures, generally three to six months. Any gains and losses on the fair value of these contracts would largely offset corresponding losses and gains on the underlying transactions. The majority of our foreign currency transactions and foreign operations are denominated in the euro and Japanese yen. In the absence of a substantial increase in sales orders in currencies other than U.S. dollars, we believe a 10% appreciation or depreciation of the U.S. dollar against the euro and yen would have an immaterial impact on our consolidated financial position and results of operations.

Item 8. Financial Statements and Supplementary Data

Financial statements and supplementary data required pursuant to this item begin on Page F-1 of this Annual Report on Form 10-K.

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

None.

Item 9A. Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, carried out an evaluation, as of the end of the period covered by this report, of the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Based upon their evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of such period, our disclosure controls and procedures were effective in recording, processing, summarizing and reporting on a timely basis information required to be disclosed by us in the reports that we file or submit under the Exchange Act and were effective in ensuring that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

There were no changes in our internal controls over financial reporting that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Management on Zygo Corporation's Internal Control Over Financial Reporting

We, as members of management of Zygo Corporation (the "Company"), are responsible for establishing and maintaining adequate internal control over financial reporting, as such term is identified in Exchange Act Rule 13a-15(f). The Company's internal control over financial reporting is a process designed to provide reasonable assurance to the Company's management and Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. Internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles in the United States of America, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. In addition, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Under the supervision and with the participation of management, including our principal executive and financial officers, we assessed the Company's internal control over financial reporting as of June 30, 2007, based on criteria for effective internal control over financial reporting established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, we concluded that the Company maintained effective internal control over financial reporting as of June 30, 2007 based on the specified criteria.

Deloitte & Touche LLP, the independent registered public accounting firm that also audited the Company's consolidated financial statements included in this Form 10-K, audited the operating effectiveness of internal control over financial reporting and issued their attestation report which is included on page F-2.

Zygo Corporation

September 19, 2007

By: /s/ J. Bruce Robinson
J. Bruce Robinson
Chairman and Chief Executive Officer

September 19, 2007

By: /s/ Walter A. Shephard
Walter A. Shephard
Vice President, Finance, Chief Financial Officer,
and Treasurer

Item 9B. Other Information

None.

PART III

Item 10. Directors, and Executive Officers and Corporate Governance

Except for the information concerning executive officers which is set forth in Part I of this Annual Report, information required by this item will be included under the captions “Election of Board of Directors” and “Corporate Governance” in our Proxy Statement to be filed pursuant to Regulation 14A for use in connection with our company’s 2007 Annual Meeting of Stockholders and is incorporated herein by reference.

Item 11. Executive Compensation

Information required by this item will be included in our 2007 Proxy Statement under the captions “Compensation of Executive Officers” and “Corporate Governance” is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this item will be included in our 2007 Proxy Statement under the captions “Equity Compensation Plan Information,” and “Security Ownership of Certain Beneficial Owners” and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information required by this item will be included in our 2007 Proxy Statement under the captions “Certain Relationships and Related Transactions,” “Election of Board of Directors,” and “Corporate Governance” and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

Information required by this item will be included in our 2007 Proxy Statement under the caption “Relationship with Independent Public Accountants” and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) The following documents are filed as part of this report:

1. and 2. Consolidated Financial Statements and Financial Statement Schedule:
An index to the consolidated financial statements and financial statement schedule filed is located on page F-1.
3. EXHIBITS
- 3.(i) Restated Certificate of Incorporation of the Company and amendments thereto (Exhibit 3.(i) to the Company's Annual Report on Form 10-K for its year ended June 30, 1993)*
- 3.(ii) Certificate of Amendment of Certificate of Incorporation, filed June 3, 1996 (Exhibit 3.(ii) to the Company's Annual Report on Form 10-K 405 for its year ended June 30, 1996)*
- 3.(iii) By-laws of the Company (Exhibit (3)(b) to Registration No. 2-87253 on Form S-1 hereinafter "Registration No. 2-87253")*
- 4.1 Zygo Corporation Code of Ethics (Exhibit 14.1 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended March 26, 2004)*
- 10.1 Confidentiality and Non-Competition Agreement dated October 25, 1983, between the Company and Carl A. Zaroni (Exhibit (10)(b) to Registration No. 2-87253)*
- 10.2 Agreement dated November 20, 1980, between the Company and Canon Inc. regarding exchange of information (Exhibit (10)(y) to Registration No. 2-87253)*
- 10.3 Amended and Restated Zygo Corporation Profit Sharing Plan (Exhibit 10.15 to the Company's Annual Report on Form 10-K 405 for its year ended June 30, 1995)*
- 10.4 Canon/ZYGO Confidentiality Agreement dated March 7, 1990, between the Company and Canon Inc. regarding confidential technical information received from each other (Exhibit 10.42 to the Company's Annual Report on Form 10-K for its year ended June 30, 1991)*
- 10.5 Non-Competition Agreement dated August 26, 1993, between the Company and Paul F. Forman (Exhibit 10.27 to the Company's Annual Report on Form 10-K for its year ended June 30, 1993)*
- 10.6 Zygo Corporation Amended and Restated Non-Qualified Stock Option Plan ratified and approved by the Company's Stockholders on November 19, 1992 (Exhibit 10.30 to the Company's Annual Report on Form 10-K for its year ended June 30, 1993)*
- 10.7 Zygo Corporation Non-Employee Director Stock Option Plan ratified and approved by the Company's Stockholders on November 17, 1994 (Exhibit 10.30 to the Company's Annual Report on Form 10-K 405 for its year ended June 30, 1996)*
- 10.8 Employment agreement dated January 15, 1999, between Zygo Corporation and J. Bruce Robinson (Exhibit 10.34 to the Company's Annual Report on Form 10-K 405 for its year ended June 30, 1999)*
- 10.9 Zygo Corporation Amended and Restated Non-Employee Director Stock Option Plan ratified and approved by the Company's Stockholders on November 17, 1999 (Exhibit to the Company's Definitive Proxy Statement for its year ended June 30, 1999)*
- 10.10 Employment agreement dated July 1, 1999, between Zygo Corporation and Brian J. Monti (Exhibit 10.22 to the Company's Annual Report on Form 10-K 405 for its year ended June 30, 2000)*
- 10.11 Subcontract B519044 between The Regents of The University of California Lawrence Livermore National Laboratory and Zygo Corporation dated January 14, 2002 (Exhibit 10.25 to the Company's Annual Report on Form 10-K for its year ended June 30, 2002)*

- 10.12 Development Agreement dated September 11, 2002, between Zygo Corporation and Canon, Inc. (Exhibit 99.2 to the Company's Current Reports on Form 8-K dated September 17, 2002)*
- 10.13 Development and Manufacturing Support Services Agreement effective December 1, 2001, between Zygo Corporation and Philips Electronics North America Corporation. (Exhibit 99.1 to the Company's Current Reports on Form 8-K dated October 22, 2002)*
- 10.14 Offer Letter dated February 10, 2004 between Zygo Corporation and Walter Shephard. (Exhibit 10.30 to the Company's Annual Report on Form 10-K for its year ended June 30, 2004)*
- 10.15 Development Agreement Amendment dated December 20, 2004, between Zygo Corporation and Canon Inc. (Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended December 31, 2004)*
- 10.16 Development Agreement Amendment dated February 26, 2005, between Zygo Corporation and Canon Inc. (Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended March 31, 2005)*
- 10.17 Development Agreement dated February 23, 2005, between Zygo Corporation and Canon Inc. (Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended March 31, 2005)*
- 10.18 Zygo Corporation 2002 Equity Incentive Plan Restricted Stock Agreement. (Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended September 30, 2005).
- 10.19 Zygo Corporation 2002 Equity Incentive Plan Stock Option Agreement. (Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended September 30, 2005).
- 10.20 Employment contract dated October 23, 2006 between Zygo Corporation and James Northup. (Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended December 31, 2006)*
- 10.21 Employment contract dated November 20, 2006 between Zygo Corporation and John Stack. (Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended December 31, 2006)*
- 10.22 Agreement dated February 8, 2007 between Zygo Corporation and Carl A. Zaroni. (Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for its quarterly period ended March 31, 2007)*
- 10.23 Employment contract dated June 15, 2007 between Zygo Corporation and Walter A. Shephard.
- 21. Subsidiaries of Registrant
 - 23.1 Consent of Independent Registered Public Accounting Firm
 - 23.2 Consent of Independent Registered Public Accounting Firm
- 24. Power of Attorney (included in the signature page)
 - 31.1 Certification Pursuant to Rule 13A-14(a) or 15D-14(a) of the Securities Exchange Act of 1934, as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
 - 31.2 Certification Pursuant to Rule 13A-14(a) or 15D-14(a) of the Securities Exchange Act of 1934, as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
 - 32.1 Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
 - 32.2 Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Exhibit numbers 10.3, 10.6, 10.7, 10.8, 10.9, 10.10, 10.14, 10.18, 10.19, 10.20, 10.21, 10.22, and 10.23 are management contracts, compensatory plans or compensatory arrangements.

*Incorporated herein by reference.

ZYGO CORPORATION AND CONSOLIDATED SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND SCHEDULE

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All other schedules have been omitted since the required information is not present or not present in amounts sufficient to require submission of the schedules or the information required is included in the consolidated financial statements or notes thereto.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Zygo Corporation
Middlefield, Connecticut

We have audited the accompanying consolidated balance sheets of Zygo Corporation and subsidiaries (the "Company") as of June 30, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the two years in the period ended June 30, 2007. We also have audited the Company's internal control over financial reporting as of June 30, 2007, based on the criteria established in Internal Control — Integrated Framework—issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management on Zygo Corporation's Internal Control Over Financial Reporting (Item 9A). Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Zygo Corporation and subsidiaries as of June 30, 2007 and 2006, and the results of their operations and their cash flows for each of the two years in the period ended June 30, 2007, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 30, 2007, based on the criteria established in Internal Control — Integrated Framework — issued by the Committee of Sponsoring Organizations of the Treadway Commission.

As discussed in Notes 1 and 13 to the consolidated financial statements, the Company changed its method of accounting for stock options as of July 1, 2005.

/s/ Deloitte & Touche LLP
Hartford, Connecticut
September 19, 2007

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Zygo Corporation:

We have audited the accompanying consolidated statements of operations, stockholders' equity, and cash flows of Zygo Corporation and subsidiaries (the "Company") for the year ended June 30, 2005. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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 audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the results of operations and cash flows of Zygo Corporation and subsidiaries for the year ended June 30, 2005, in conformity with U.S. generally accepted accounting principles.

/s/ KPMG LLP
Stamford, Connecticut
September 7, 2005, except as to notes 2 and 16 (as it relates to 2005 disclosures) to the consolidated financial statements which are as of June 20, 2006 and September 10, 2007, respectively

CONSOLIDATED BALANCE SHEETS
(Thousands of dollars, except share amounts)

	<u>June 30, 2007</u>	<u>June 30, 2006</u>
Assets		
Current assets:		
Cash and cash equivalents	\$ 17,826	\$ 20,318
Marketable securities (note 4)	29,453	21,415
Receivables, net of allowance for doubtful accounts of \$333 and \$588, respectively (notes 5 and 17)	32,476	33,759
Inventories (note 6)	43,048	38,082
Prepaid expenses	2,240	2,106
Deferred income taxes (note 15)	15,077	11,959
Total current assets	<u>140,120</u>	<u>127,639</u>
Marketable securities (note 4)	22,879	23,743
Property, plant, and equipment, net (note 7)	36,349	32,631
Deferred income taxes (note 15)	5,700	15,433
Intangible assets, net (note 8)	6,110	5,925
Other assets	436	812
Total assets	<u>\$211,594</u>	<u>\$206,183</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 8,720	\$ 13,987
Accrued progress payments (note 17)	8,770	17,031
Accrued salaries and wages	9,056	8,445
Other accrued expenses (note 10)	4,637	4,258
Income taxes payable	1,103	2,004
Total current liabilities	<u>32,286</u>	<u>45,725</u>
Other long-term liabilities	555	101
Minority interest	976	1,419
Commitments and contingencies (notes 10 and 11)		
Stockholders' equity (notes 13, 14 and 15):		
Common stock, \$.10 par value per share:		
40,000,000 shares authorized;		
18,692,478 shares issued (18,552,684 in 2006);		
18,242,192 shares outstanding (18,105,479 in 2006)	1,869	1,855
Additional paid-in capital	148,844	145,225
Retained earnings	32,194	17,052
Accumulated other comprehensive income:		
Currency translation effects	205	74
Net unrealized gain on marketable securities (note 4)	—	19
	<u>183,112</u>	<u>164,225</u>
Less treasury stock, at cost; 450,286 common shares (447,205 in 2006)	5,335	5,287
Total stockholders' equity	<u>177,777</u>	<u>158,938</u>
Total liabilities and stockholders' equity	<u>\$211,594</u>	<u>\$206,183</u>

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF OPERATIONS

(Thousands except per share amounts)

	Fiscal Year Ended June 30,		
	2007	2006	2005
Net sales (note 17):			
Products	\$176,937	\$148,123	\$125,732
Development services	4,051	20,014	15,617
	<u>180,988</u>	<u>168,137</u>	<u>141,349</u>
Cost of goods sold:			
Products	100,835	88,119	76,921
Development services	2,970	14,247	11,138
	<u>103,805</u>	<u>102,366</u>	<u>88,059</u>
Gross profit	77,183	65,771	53,290
Selling, general, and administrative expenses	32,876	31,125	24,905
Research, development, and engineering expenses	22,038	15,901	13,377
Operating profit	<u>22,269</u>	<u>18,745</u>	<u>15,008</u>
Other income:			
Interest income	2,990	2,119	885
Miscellaneous income (expense), net	(9)	262	(98)
Total other income	<u>2,981</u>	<u>2,381</u>	<u>787</u>
Earnings from continuing operations before income tax expense and minority interest	25,250	21,126	15,795
Income tax expense (note 15)	(9,132)	(5,849)	(5,694)
Minority interest	(976)	(792)	(751)
Earnings from continuing operations	<u>15,142</u>	<u>14,485</u>	<u>9,350</u>
Discontinued TeraOptix operations, net of tax (note 3)	—	—	(242)
Charges related to the disposal of TeraOptix, net of tax (note 3)	—	—	(124)
Loss from discontinued operations	—	—	(366)
Net earnings	<u>\$ 15,142</u>	<u>14,485</u>	<u>\$ 8,984</u>
Basic - Earnings (loss) per share:			
Continuing operations	\$ 0.83	0.80	\$ 0.52
Discontinued operations	—	—	(0.02)
Net earnings	<u>\$ 0.83</u>	<u>0.80</u>	<u>\$ 0.50</u>
Diluted - Earnings (loss) per share:			
Continuing operations	\$ 0.81	0.79	\$ 0.52
Discontinued operations	—	—	(0.02)
Net earnings	<u>\$ 0.81</u>	<u>0.79</u>	<u>\$ 0.50</u>
Weighted average number of shares:			
Basic	<u>18,156</u>	<u>18,054</u>	<u>17,950</u>
Diluted	<u>18,601</u>	<u>18,367</u>	<u>18,140</u>

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(Thousands of dollars)

	<u>Total</u>	<u>Compre- hensive Income (Loss)</u>	<u>Retained Earnings (Deficit)</u>	<u>Accumulated Other Compre- hensive Income (Loss)</u>	<u>Common Stock</u>	<u>Treasury Stock</u>	<u>Paid-In Capital</u>
Balance at July 1, 2004	\$131,352		\$ (6,417)	\$ 72	\$1,833	\$ (5,287)	\$141,151
Comprehensive income:							
Net earnings	8,984	<u>\$ 8,984</u>	8,984				
Other comprehensive income (loss), net of tax:							
Unrealized loss on marketable securities	(30)	(30)					
Foreign currency translation effect ..	(122)	<u>(122)</u>					
Other comprehensive (loss)		<u>(152)</u>		(152)			
Comprehensive Income		<u>\$ 8,832</u>					
Non-cash compensation charges							
related to stock options	76						76
Employee stock purchase	667				7		660
Exercise of employee stock options and related tax effect	<u>226</u>				<u>2</u>		<u>224</u>
Balance at June 30, 2005	141,153		2,567	(80)	1,842	(5,287)	142,111
Comprehensive income:							
Net earnings	14,485	<u>\$14,485</u>	14,485				
Other comprehensive income (loss), net of tax:							
Unrealized loss on marketable securities	(13)	(13)					
Foreign currency translation effect ..	186	<u>186</u>					
Other comprehensive income		<u>173</u>		173			
Comprehensive income		<u>\$14,658</u>					
Non-cash compensation charges							
related to stock options	1,698						1,698
Employee stock purchase	492				5		487
Exercise of employee stock options and related tax effect	<u>937</u>				<u>8</u>		<u>929</u>
Balance at June 30, 2006	158,938		17,052	93	1,855	(5,287)	145,225
Comprehensive income:							
Net earnings	15,142	<u>\$15,142</u>	15,142				
Other comprehensive income (loss), net of tax:							
Unrealized loss on marketable securities	(19)	(19)					
Foreign currency translation effect	131	<u>131</u>					
Other comprehensive income		<u>112</u>		112			
Comprehensive income		<u>\$15,254</u>					
Non-cash compensation charges							
related to stock options	2,189						2,189
Employee stock purchase	323				2		321
Repurchase of company stock	(48)					(48)	
Exercise of employee stock options and related tax effect	<u>1,121</u>				<u>12</u>		<u>1,109</u>
Balance at June 30, 2007	<u>\$177,777</u>		<u>\$32,194</u>	<u>\$205</u>	<u>\$1,869</u>	<u>\$ (5,335)</u>	<u>\$148,844</u>

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(Thousands of dollars)

	Fiscal Year Ended June 30,		
	2007	2006	2005
Cash provided by operating activities:			
Net earnings	\$ 15,142	\$ 14,485	\$ 8,984
Adjustments to reconcile net earnings to cash provided by operating activities:			
Loss from discontinued operations	—	—	366
Depreciation and amortization	6,519	6,214	5,880
Loss on disposal of assets	190	266	209
Deferred income taxes	6,606	3,836	5,333
Compensation cost related to share-based payment arrangements	2,189	1,698	—
Excess tax benefits from share-based payment arrangements	(190)	(128)	—
Minority interest	976	792	751
Other	111	5	97
Changes in operating accounts:			
Receivables	1,833	(5,438)	(1,630)
Inventories	(4,964)	(3,959)	(11,650)
Prepaid expenses	(138)	20	(202)
Accounts payable, accrued expenses, and taxes payable	(13,193)	(1,773)	24,109
Net cash provided by continuing operations	15,081	16,018	32,247
Net cash used for discontinued operations	—	—	(423)
Net cash provided by operating activities	<u>15,081</u>	<u>16,018</u>	<u>31,824</u>
Cash used for investing activities:			
Additions to property, plant, and equipment	(10,149)	(7,441)	(9,987)
Purchase of marketable securities	(38,546)	(31,336)	(28,389)
Additions to intangibles and other assets	(490)	(816)	(1,332)
Proceeds from the sale of other assets	24	9	55
Proceeds from maturity of marketable securities	31,402	22,000	17,556
Net cash used for continuing operations	(17,759)	(17,584)	(22,097)
Net cash provided by discontinued operations	—	—	1,918
Net cash used for investing activities	<u>(17,759)</u>	<u>(17,584)</u>	<u>(20,179)</u>
Cash provided by financing activities:			
Dividend payments to minority interest	(1,287)	(622)	(751)
Employee stock purchase	323	492	667
Excess tax benefits from share-based payment arrangements	190	128	—
Repurchase of company stock	(48)	—	—
Exercise of employee stock options	1,121	937	226
Net cash provided by financing activities	<u>299</u>	<u>935</u>	<u>142</u>
Effect of exchange rate changes on cash and cash equivalents	(113)	—	—
Net increase (decrease) in cash and cash equivalents	(2,492)	(631)	11,787
Cash and cash equivalents, beginning of year	20,318	20,949	9,162
Cash and cash equivalents, end of year	<u>\$ 17,826</u>	<u>\$ 20,318</u>	<u>\$ 20,949</u>

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended June 30, 2007, 2006, and 2005

(Dollars in thousands, except for per share amounts)

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Operations and Principles of Consolidation

Zygo Corporation is a worldwide supplier in optical metrology instruments, precision optics, and electro-optical design and manufacturing services, serving customers in the semiconductor capital equipment and industrial markets. The accompanying consolidated financial statements include the accounts of Zygo Corporation and its subsidiaries (“ZYGO,” “we,” “us,” “our” or “Company”). All material transactions and accounts with the subsidiaries have been eliminated from the consolidated financial statements.

Cash and Cash Equivalents

We consider cash and investments in securities with maturities at the date of purchase of three months or less to be cash and cash equivalents.

Marketable Securities

We consider investments in securities with maturities at the date of purchase in excess of three months as marketable securities. Marketable securities consist primarily of corporate and government agency securities. All securities held by us at June 30, 2007 and 2006 were classified as held-to-maturity and recorded at amortized cost.

Inventories

Inventories are stated at the lower of cost (determined on a first-in, first-out basis) or market.

Property, Plant, and Equipment

Property, plant, and equipment are stated at cost. Maintenance and repairs are charged to expense as incurred. Management evaluates, on an ongoing basis, the carrying value of our property, plant, and equipment and makes adjustments when impairments are identified. Depreciation is based on the estimated useful lives of the various classes of assets and is computed using the straight-line method.

Intangible Assets

Intangible assets include patents, trademarks, and license agreements. The cost of intangible assets is amortized on a straight-line basis, over estimated useful lives ranging from 5-17 years.

Valuation of Long-Lived Assets

In accordance with Statement of Financial Accounting Standards (“SFAS”) No. 144, “Accounting for the Impairment or Disposal of Long-Lived Assets,” the carrying value of intangible assets and other long-lived assets is reviewed on a regular basis for the existence of facts or circumstances, both internally and externally, that may suggest impairment. Some factors considered important, which could trigger an impairment review, include a significant decrease in the market value of an asset, a significant change in the extent or manner in which an asset is used, a significant adverse change in the business climate that could affect the value of an asset, an accumulation of costs for an asset in excess of the amount originally expected, a current period operating loss or cash flow decline combined with a history of operating losses or cash flow uses or a projection that demonstrates continuing losses, and a current expectation that, it’s more likely than not, a long-lived asset will be disposed of at a loss before the end of its estimated useful life.

If any such facts or circumstances exist, the carrying value of long-lived assets are evaluated to determine if impairment exists based upon estimated undiscounted future cash flows over the remaining useful life of the assets and comparing that value to the carrying value of the assets. If the carrying value of the assets is greater

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

than the estimated future cash flows, the assets are written down to the estimated fair value. The estimated fair value of the assets is based on a current market value of the assets. If a current market value is not readily available, a projected discounted cash flow method is applied using a discount rate determined by management to be commensurate with the risk inherent in the current business model. Our cash flow estimates contain management's best estimates, using appropriate and customary assumptions and projections at the time.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. As of June 30, 2007 and 2006, income tax contingencies are evaluated on the criteria in SFAS No. 5 based on their probability of occurring.

Revenue Recognition

We recognize revenue based on guidance provided in Securities and Exchange Commission ("SEC") Staff Accounting Bulletin ("SAB") No. 104, "Revenue Recognition," and in accordance with Emerging Issues Task Force ("EITF") Issue No. 00-21, "Revenue Arrangements with Multiple Deliverables." We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, our price is fixed or determinable, and collectibility is reasonably assured. We recognize revenue on our standard products when title passes to the customer upon shipment. While our standard products generally require installation, the installation is considered a perfunctory performance obligation. The standard products do not have customer acceptance criteria. Generally, software is a component of our standard product and, as such, is not separately recognized as revenue. Standalone software products are recognized as revenue when they are shipped. We have standard rights of return that we account for as a warranty provision under SFAS No. 5, "Accounting for Contingencies." We do not have any price protection agreements or other post shipment obligations. For custom equipment where customer acceptance is part of the sales agreement, revenue is recognized when the customer has accepted the product. In cases where custom equipment does not have customer acceptance as part of the sales agreement, we recognize revenue upon shipment, as long as the system meets the specifications as agreed upon with the customer. Certain transactions have multiple deliverables, with the deliverables clearly defined. To the extent that the secondary deliverables are other than perfunctory, we recognize the revenue on each deliverable, if separable, or on the completion of all deliverables, if not separable. Revenue generated from development contracts are recorded on a cost-plus basis in the period services are rendered.

Research and Development

Research and development costs are expensed as incurred. Reimbursements from customers for research and development costs are recorded as offsets to the expenses. In fiscal 2007 and 2006, reimbursements totaled \$170 and \$1,176, respectively. There were no reimbursements from customers for research and development costs in fiscal 2005.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Earnings Per Share

Basic and diluted earnings per share are calculated in accordance with SFAS No. 128, "Earnings Per Share." The following table sets forth the reconciliation of weighted average shares outstanding and diluted weighted average shares outstanding:

	<u>June 30, 2007</u>	<u>June 30, 2006</u>	<u>June 30, 2005</u>
Weighted average shares outstanding	<u>18,155,627</u>	<u>18,053,596</u>	<u>17,950,423</u>
Dilutive effect of stock options and restricted stock	<u>445,675</u>	<u>313,470</u>	<u>189,750</u>
Diluted weighted average shares outstanding	<u>18,601,302</u>	<u>18,367,066</u>	<u>18,140,173</u>

Share-Based Compensation

We have two share-based compensation plans, which are described in Note 13. In December 2004, the Financial Accounting Standards Board ("FASB") issued SFAS 123(R), "Share-Based Payment (as amended)." SFAS No. 123(R) eliminates the alternative to use the intrinsic value method of accounting that was provided in SFAS No. 123, which generally resulted in no compensation expense recorded in the financial statements related to the issuance of equity awards to employees and directors to the extent issued at fair market value. SFAS No. 123(R) requires that the cost resulting from all share-based payment transactions be recognized in the financial statements. SFAS No. 123(R) establishes fair value as the measurement objective in accounting for share-based payment arrangements and requires all companies to apply a fair-value-based measurement method in accounting generally for all share-based payment transactions with employees. SFAS 123(R) does not require the recording of compensation expense in periods prior to the date of adoption.

On July 1, 2005, we adopted SFAS No. 123(R) using a modified prospective method. Compensation expense for the fiscal year ended June 30, 2007 was \$2,189, with a related tax benefit of \$788. Share-based compensation expense for fiscal 2007 increased cost of sales by \$244, selling, general, and administration by \$1,497, and research, development, and engineering by \$448. Compensation expense for the fiscal year ended June 30, 2006 was \$1,698, with a related tax benefit of \$608. Share-based compensation expense for fiscal 2006 increased cost of sales by \$419, selling, general, and administration by \$1,023, and research, development, and engineering by \$256. Under this application, we are required to record compensation expense for all awards granted after the date of adoption and for the unvested portion of previously granted awards that remain outstanding at the date of adoption. In addition, we made changes to our employee stock purchase plan for periods beginning after July 1, 2005, which rendered the plan non-compensatory in accordance with SFAS No. 123(R).

Prior to the adoption of SFAS No. 123(R), we applied Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations in accounting for our plans. The following table details the effect on net earnings and earnings per share had compensation expense for the employee share-based awards been recorded for fiscal years ended June 30, 2005 based on the fair value method under SFAS No. 123.

	<u>June 30, 2005</u>
Net earnings, as reported	<u>\$ 8,984</u>
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	<u>(2,519)</u>
Pro forma net earnings	<u>\$ 6,465</u>
Net earnings per share	
Basic - as reported	<u>\$ 0.50</u>
Basic - pro forma	<u>\$ 0.36</u>
Diluted - as reported	<u>\$ 0.50</u>
Diluted - pro forma	<u>\$ 0.36</u>

The above pro forma information is based on historical activity and may not represent future trends.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Fair Value of Financial Instruments

SFAS No. 107, "Disclosures about Fair Value of Financial Instruments," requires that reporting entities provide, to the extent practicable, the fair value of financial instruments, both assets and liabilities. The carrying amounts of cash, accounts receivable, accounts payable, and accrued expenses approximate fair value because they are short-term in nature.

Use of Estimates

Management has made a number of estimates and assumptions relating to the reporting of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities to prepare these consolidated financial statements in conformity with accounting principles generally accepted in the United States of America. On an ongoing basis, management evaluates its estimates and judgments, including those related to bad debts, inventories, long-lived assets, share-based compensation, income taxes, and warranty obligations. Actual results could differ from those estimates.

Recently Issued Accounting Pronouncements

In February 2007, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standard ("SFAS") No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities" ("SFAS 159"). SFAS 159 permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value, with unrealized gains and losses related to these financial instruments reported in earnings at each subsequent reporting date. This Statement is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. The Company is in the process of evaluating the impact of SFAS 159 on our financial statements.

In September 2006, the SEC issued Staff Accounting Bulletin 108 ("SAB 108") to address diversity in practice in quantifying financial statement misstatements. SAB 108 requires that we quantify misstatements based on their impact on each of our financial statements and related disclosures. SAB 108 was effective as of the end of our 2007 fiscal year, allowing a one-time transitional cumulative effect adjustment to retained earnings as of June 30, 2007 for errors that were not previously deemed material, but are material under the guidance in SAB 108. The adoption of SAB 108 did not have a material effect on our financial statements.

In September 2006, the FASB issued SFAS No. 158, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans" ("SFAS 158"). SFAS 158 requires employers to fully recognize the obligations associated with single-employer defined benefit pension, retiree healthcare, and other post-retirement plans in their financial statements. The provisions of SFAS 158 are effective as of the end of our fiscal year ending June 30, 2007. The impact of the provisions of SFAS 158 did not have a material effect on our company.

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements" ("SFAS 157"). SFAS 157 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and expands disclosures about fair value measurements. The provisions of SFAS 157 are effective for our fiscal year beginning July 1, 2008. We are currently evaluating the impact of the provisions of SFAS 157 on our company.

In June 2006, the FASB issued Interpretation No. 48 ("FIN No. 48"), Accounting for Uncertainty in Income Taxes – an interpretation of FASB Statement No. 109, which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with SFAS No. 109, Accounting for Income Taxes. The Interpretation provides a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Under FIN No. 48, the Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position should be measured based on the

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. FIN No. 48 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. FIN No. 48 is effective for us beginning July 1, 2007. While the Company is continuing to evaluate the impact of the interpretation on the consolidated financial statements, the Company expects the cumulative effect of adoption to reduce opening retained earnings by no more than \$4.8 million with a corresponding increase in reserves for uncertain tax positions, primarily related to certain federal tax credit carryforwards.

NOTE 2: RESTATEMENT OF FINANCIAL STATEMENTS

The consolidated financial statements for fiscal year 2005 have been restated in 2006 for corrections in the accounting of intercompany transactions from certain of our foreign operations. The fiscal year 2005 adjustments reduced revenues by \$818; earnings from continuing operations by \$825; and earnings per diluted share from continuing operations and net income per diluted share by \$0.04.

NOTE 3: DIVESTITURES AND DISCONTINUED OPERATIONS

In September 2002, we committed to a planned disposition of our TeraOptix business unit (“TeraOptix”) which included recording impairment charges for the facility and equipment. In fiscal 2005, we recorded an additional impairment charge and adjustments of \$124, net of tax of \$43, to reflect the fair value based on final negotiations of a pending sale. The sale of the facility was completed in March 2005 for \$1,918, net of selling expenses.

	<u>June 30, 2005</u>
Cash flow from operating activities from discontinued operations:	
Loss from discontinued operations	\$ (366)
Loss on sale and impairment of assets	94
Deferred income taxes	(128)
Prepaid expenses	<u>(23)</u>
Net cash used for operating activities from discontinued operations	<u>(423)</u>
Cash flow from investing activities from discontinued operations:	
Proceeds from sale of assets	<u>1,918</u>
Net cash provided by investing activities from discontinued operations	<u>1,918</u>
Net cash provided by discontinued operations	<u>\$1,495</u>

NOTE 4: MARKETABLE SECURITIES

Marketable securities consisted primarily of corporate and government agency securities for fiscal 2007 and 2006. Marketable securities at June 30, 2007 and 2006 are reported at amortized cost. Straight-line amortization related to discounts and premiums on the purchase of marketable securities was \$(30), \$131, and \$107 in fiscal 2007, 2006, and 2005, respectively. As of June 30, 2003, we transferred our marketable securities from available-for-sale to held-to-maturity. Accordingly, the gross unrealized gains have been amortized over the remaining life. Amortization, net of tax, related to the unrealized gain was \$19, \$13, and \$30 in fiscal 2007, 2006, and 2005, respectively.

Dividend and interest income is recognized when earned. Realized gains and losses are included in earnings and are derived using the specific identification method for determining the cost of securities sold. No sales were made in the three years ended June 30, 2007.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 4: MARKETABLE SECURITIES (Continued)

The amortized cost, gross unrealized gains and losses, and fair value of held-to-maturity securities at June 30, 2007 and 2006 were as follows:

	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>
At June 30, 2007				
Corporate, federal, state and local municipal bonds	<u>\$52,332</u>	<u>\$ 4</u>	<u>\$(202)</u>	<u>\$52,134</u>
At June 30, 2006				
Corporate, federal, state and local municipal bonds	<u>\$45,158</u>	<u>\$—</u>	<u>\$(592)</u>	<u>\$44,566</u>

Maturities of investment securities classified as held-to-maturity at June 30, 2007 and 2006 were as follows:

	<u>June 30, 2007</u>		<u>June 30, 2006</u>	
	<u>Amortized Cost</u>	<u>Fair Value</u>	<u>Amortized Cost</u>	<u>Fair Value</u>
Due within one year	<u>\$29,453</u>	<u>\$29,366</u>	<u>\$21,415</u>	<u>\$21,261</u>
Due after one year through five years . . .	<u>22,879</u>	<u>22,768</u>	<u>23,743</u>	<u>23,305</u>
	<u>\$52,332</u>	<u>\$52,134</u>	<u>\$45,158</u>	<u>\$44,566</u>

The following table shows our investments' gross unrealized losses and fair value, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position at June 30, 2007 and 2006.

	<u>Less than 12 months</u>		<u>Fiscal Year 2007 More than 12 months</u>		<u>Total</u>	
	<u>Market Value</u>	<u>Gross Unrealized Losses</u>	<u>Market Value</u>	<u>Gross Unrealized Losses</u>	<u>Market Value</u>	<u>Gross Unrealized Losses</u>
Corporate and other	<u>\$17,938</u>	<u>\$(53)</u>	<u>\$15,098</u>	<u>\$(127)</u>	<u>\$33,036</u>	<u>\$(180)</u>
US Government Agencies	<u>9,396</u>	<u>(18)</u>	<u>496</u>	<u>(4)</u>	<u>9,892</u>	<u>(22)</u>
	<u>\$27,334</u>	<u>\$(71)</u>	<u>\$15,594</u>	<u>\$(131)</u>	<u>\$42,928</u>	<u>\$(202)</u>
	<u>Less than 12 months</u>		<u>Fiscal Year 2006 More than 12 months</u>		<u>Total</u>	
	<u>Market Value</u>	<u>Gross Unrealized Losses</u>	<u>Market Value</u>	<u>Gross Unrealized Losses</u>	<u>Market Value</u>	<u>Gross Unrealized Losses</u>
Corporate and other	<u>\$17,049</u>	<u>\$(174)</u>	<u>\$18,718</u>	<u>\$(359)</u>	<u>\$35,767</u>	<u>\$(533)</u>
US Government Agencies	<u>2,985</u>	<u>(16)</u>	<u>1,714</u>	<u>(43)</u>	<u>4,699</u>	<u>(59)</u>
	<u>\$20,034</u>	<u>\$(190)</u>	<u>\$20,432</u>	<u>\$(402)</u>	<u>\$40,466</u>	<u>\$(592)</u>

In determining whether investment holdings are other than temporarily impaired, we consider the nature, cause, severity, and duration of the impairment. We and our investment advisors use analyst reports, credit ratings and other items as part of our review. No investments were considered to be other than temporarily impaired at June 30, 2007 and 2006.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 5: RECEIVABLES

At June 30, 2007 and 2006, receivables were as follows:

	<u>June 30, 2007</u>	June 30, 2006
Trade (note 17)	\$31,033	\$33,429
Other	1,776	918
	<u>32,809</u>	<u>34,347</u>
Allowance for doubtful accounts	(333)	(588)
	<u>\$32,476</u>	<u>\$33,759</u>

NOTE 6: INVENTORIES

At June 30, 2007 and 2006, inventories were as follows:

	<u>June 30, 2007</u>	June 30, 2006
Raw materials and manufactured parts	\$20,268	\$17,536
Work in process	17,115	17,321
Finished goods	5,665	3,225
	<u>\$43,048</u>	<u>\$38,082</u>

NOTE 7: PROPERTY, PLANT, AND EQUIPMENT

At June 30, 2007 and 2006, property plant, and equipment, at cost, were as follows:

	<u>June 30, 2007</u>	June 30, 2006	Estimated Useful Life (Years)
Land	\$ 615	\$ 615	—
Building and improvements	17,085	16,848	15-40
Machinery, equipment, and office furniture	56,395	49,889	3-8
Leasehold improvements	795	772	1-5
Construction in progress	5,231	2,916	—
	<u>80,121</u>	<u>71,040</u>	
Less accumulated depreciation	(43,772)	(38,409)	
	<u>\$ 36,349</u>	<u>\$ 32,631</u>	

Depreciation expense for the fiscal years ended June 30, 2007, 2006, and 2005 was \$6,246, \$5,734, and \$5,273, respectively.

NOTE 8: INTANGIBLE ASSETS

Intangible assets, at cost, at June 30, 2007 and 2006 were as follows:

	<u>June 30, 2007</u>	June 30, 2006	Estimated Useful Life (Years)
Patents and trademarks	\$ 7,504	\$ 7,042	12-17
License agreements	—	1,350	5
	<u>7,504</u>	<u>8,392</u>	
Accumulated amortization	(1,394)	(2,467)	
Total	<u>\$ 6,110</u>	<u>\$ 5,925</u>	

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 8: INTANGIBLE ASSETS (Continued)

Intangible amortization expense for the fiscal years ended June 30, 2007, 2006 and 2005 was \$322, \$362, and \$530, respectively. Intangible amortization expense is estimated to be approximately \$500 in fiscal 2008 and approximately \$530 annually in fiscal 2009-2012. Amortization expense related to intangible assets is included in cost of goods sold in the consolidated statements of operations.

NOTE 9: BANK LINE OF CREDIT

We have a \$3,000 unsecured bank line of credit agreement bearing interest at our choice of either the prime rate (8.25% at June 30, 2007) or the one month LIBOR rate plus a variable interest rate of 1.0% to 2.5%, based on a pricing grid related to a certain debt ratio, adjusted quarterly. The agreement contains certain financial covenants which, among others, relate to debt service and consolidated debt ratios. The line of credit is available through November 17, 2007. At June 30, 2007 and 2006, no amounts were outstanding under the bank line of credit.

NOTE 10: WARRANTY LIABILITY

A limited warranty is provided on our products for periods typically ranging from 3 to 18 months and allowances for estimated warranty costs are recorded during the period of sale. The determination of such allowances requires management to make estimates of product return rates and expected costs to repair or replace products under warranty. If actual return rates or repair and replacement costs, or both, differ significantly from management's estimates, adjustments to recognize additional expense may be required.

The following is a reconciliation of the beginning and ending balances of our accrued warranty liability, which is included in the "other accrued expenses" line item in the consolidated balance sheets:

	<u>June 30, 2007</u>	June 30, 2006
Beginning balance	\$ 1,660	\$1,396
Reductions for payments made	(1,566)	(882)
Changes in accruals related to warranties issued in the current period	2,293	1,541
Changes in accrual related to pre-existing warranties	(835)	(395)
Ending balance	<u>\$ 1,552</u>	<u>\$1,660</u>

NOTE 11: LEASES

We lease certain manufacturing equipment and facilities under operating leases, some of which include cost escalation clauses, expiring on various dates through fiscal 2012. Total lease expense, net, charged to operations was \$1,363, \$1,663, and \$2,270 in fiscal 2007, 2006, 2005, respectively. At June 30, 2007, the minimum future lease commitments under noncancellable leases payable over the remaining lives of the leases are as follows:

Year ending June 30,	Minimum Future Lease Commitments
2008	\$1,166
2009	885
2010	634
2011	286
2012	<u>11</u>
Total minimum lease payments	<u>\$2,982</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 12: PROFIT-SHARING PLAN

We maintain a deferred profit-sharing plan under which substantially all full-time employees are eligible to participate. The profit-sharing plan consists of a cash distribution and a contribution to our 401(k) program. Profit-sharing contributions are determined annually at the discretion of the Board of Directors. We also maintain a 401(k) tax deferred payroll deduction program and an Employee Stock Ownership Program. Under the 401(k) program, employees may contribute a tax-deferred amount of up to 60% of their compensation, as defined. We may contribute to the 401(k) program an amount determined annually at the discretion of the Board of Directors. Under the Employee Stock Ownership Program, we may, at the discretion of the Board of Directors, contribute our own stock or contribute cash to purchase our own stock. The purchased stock's fair market value can not exceed the maximum amount of employee stock ownership credit as determined under Section 416 of the Internal Revenue Code. Our contribution expenses related to the plans for the years ended June 30, 2007, 2006, and 2005, amounted to \$3,630, \$2,847, and \$2,070, respectively.

NOTE 13: SHARE-BASED COMPENSATION PLANS

Share-Based Compensation Plans

ZYGO has two share-based compensation plans. The Zygo Corporation 2002 Equity Incentive Plan ("2002 Plan") permits the granting of stock options to purchase shares of common stock and the granting of restricted stock up to a total of 3,300,000 shares. The exercise price per share of common stock covered by an option may not be less than the par value per share on the date of grant, and in the case of an incentive stock option, the exercise price may not be less than the market value per share on the date of grant. These options generally vest over a four year period at a rate of 25% each year. Generally, restricted stock awards have 50% of their restrictions lapse after three years and the remaining 50% lapse after four years. The 2002 Plan will expire on August 27, 2012. Pursuant to the terms of the 2002 Plan, the Board of Directors may also amend the 2002 Plan to authorize the grant of other types of equity-based awards, without further action by our stockholders. Options issued to non-employee directors are now issued under this plan. As part of director's compensation for services to our company, non-employee directors are granted 5,000 restricted shares, which vest after one year, on an annual basis and each new non-employee director will be granted options to purchase 16,000 shares of common stock on his or her first day of service, at the market value per share on the date of grant. These options will vest over a four year period at a rate of 25% each year.

The Zygo Corporation Amended and Restated Non-Employee Director Stock Option Plan ("Director Plan") permits the granting of non-qualified options to purchase a total of 620,000 shares (adjusted for splits) of common stock at prices not less than the market value of the stock on the date of grant. Under the terms of the Director Plan, as amended on September 24, 1999, each new non-employee director (other than a person who was previously an employee of ZYGO or any of our subsidiaries) was granted an option to purchase 8,000 shares of common stock, generally, on his or her first day of service as a non-employee director; and each other non-employee director was granted an option to purchase 3,000 shares of common stock on an annual basis. All options were fully exercisable on the date of grant and had a 10-year term. The Director Plan, as amended, will expire on November 17, 2009. The Company ceased granting options under this plan in fiscal 2003 and does not intend to grant further options under the Director Plan.

On June 26, 2001, the Board of Directors granted a warrant to purchase 25,000 shares of our common stock to the Zetetic Institute, a non-profit organization that provides assistance to us in connection with certain research and development activities. The warrant has an exercise price of \$18.64 per share, the closing price of the common stock on the date of the grant, and vested in equal annual increments over the four-year period following the date of grant. The warrant will expire in fiscal 2011.

We use the Black-Scholes option-pricing model to calculate the fair value of stock option awards. The key assumptions for this valuation method include the expected term of the option, stock price volatility, risk-free interest rate, dividend yield, exercise price, and forfeiture rate. Under the assumptions indicated below, the weighted-average fair value of stock option grants for fiscal 2007, 2006, and 2005 were \$6.23, \$5.41 and \$6.32,

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 13: SHARE-BASED COMPENSATION PLANS (Continued)

respectively. The table below indicates the key assumptions used in the option valuation calculations for options granted in fiscal 2007, 2006, and 2005, and a discussion of our methodology for developing each of the assumptions used in the valuation model:

	Fiscal Years Ended June 30,		
	2007	2006	2005
Term	4.1 Years	4.1 Years	4.5 Years
Volatility	52.1%	52.9%	64-80%
Dividend yield	0.0%	0.0%	0.0%
Risk-free interest rate	4.7-4.8%	3.9-4.4%	3.2-3.9%
Forfeiture rate	10.7%	10.6%	4.0%

Term – This is the period of time over which the options granted are expected to remain outstanding. Options granted have a maximum term of ten years. An increase in the expected term will increase compensation expense.

Volatility – This is a measure of the amount by which a price has fluctuated or is expected to fluctuate. Volatilities are based on implied volatilities from traded options of ZYGO’s shares, historical volatility of ZYGO’s shares, and other factors, such as expected changes in volatility arising from planned changes in ZYGO’s business operations. An increase in the expected volatility will increase compensation expense.

Risk-Free Interest Rate – This is the U.S. Treasury rate for the week of the grant having a term equal to the expected term of the option. An increase in the risk-free interest rate will increase compensation expense.

Dividend Yield – We did not make any dividend payments during the last five fiscal years and we have no plans to pay dividends in the foreseeable future. An increase in the dividend yield will decrease compensation expense.

Forfeiture Rate – This is the estimated percentage of options granted that are expected to be forfeited or canceled before becoming fully vested. An increase in the forfeiture rate will decrease compensation expense.

Stock Options

Included in the information below are outstanding options from the Zygo Corporation Amended and Restated Non-Qualified Stock Option Plan which expired in fiscal 2003, to the extent the options remain available for exercise.

The following table summarizes information about our stock options granted under our share-based compensation plans for fiscal 2007, 2006, and 2005.

	June 30, 2007		June 30, 2006		June 30, 2005	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year	2,082,636	\$26.03	2,069,175	\$26.95	1,902,985	\$29.89
Granted	175,000	\$13.47	186,000	\$11.80	289,200	\$ 9.51
Exercised	(108,740)	\$ 8.85	(83,340)	\$ 9.07	(19,856)	\$ 7.26
Expired or cancelled	(91,130)	\$27.75	(89,199)	\$33.20	(103,154)	\$36.14
Options - Outstanding-end of year	<u>2,057,766</u>	<u>\$25.80</u>	<u>2,082,636</u>	<u>\$26.03</u>	<u>2,069,175</u>	<u>\$26.95</u>
Options vested or expected to vest	<u>2,018,558</u>	<u>\$26.05</u>	<u>2,054,698</u>	<u>\$26.25</u>	<u>1,942,339</u>	<u>\$27.02</u>
Options - Exercisable-end of year	<u>1,668,766</u>	<u>\$29.13</u>	<u>1,585,574</u>	<u>\$31.19</u>	<u>1,408,206</u>	<u>\$35.12</u>

At June 30, 2007, outstanding options at the end of the year had an intrinsic value of \$5,418 with a weighted average remaining contractual life of 5.3 years. At June 30, 2007, options vested or expected to vest at the end of the year had an intrinsic value of \$5,342 with a weighted average remaining contractual life of 5.2 years. In addition, exercisable options at the end of the year had an intrinsic value of \$4,256 with a weighted average remaining contractual life of 4.6 years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 13: SHARE-BASED COMPENSATION PLANS (Continued)

The following table summarizes information about our stock options granted under our share-based compensation plans as of June 30, 2007.

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding as of June 30, 2007	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable as of June 30, 2007	Weighted Average Exercise Price
\$ 5.20 - \$ 7.80	229,280	5.1	\$ 6.52	229,280	\$ 6.52
\$ 7.90 - \$11.85	751,050	5.8	\$10.02	534,300	\$10.12
\$12.29 - \$18.44	494,788	6.7	\$13.97	323,038	\$14.15
\$18.64 - \$27.96	168,700	3.9	\$19.06	168,200	\$19.06
\$28.31 - \$42.47	4,750	3.2	\$35.14	4,750	\$35.14
\$42.94 - \$64.41	27,200	3.1	\$43.50	27,200	\$43.50
\$65.69 - \$98.53	381,998	3.2	\$85.31	381,998	\$85.31
\$ 5.20 - \$98.53	<u>2,057,766</u>	<u>5.3</u>	<u>\$25.80</u>	<u>1,668,766</u>	<u>\$29.13</u>

As of June 30, 2007, there was \$1,658 of total unrecognized compensation cost related to stock options. These costs are expected to be recognized over a weighted average period of 2.4 years.

The total intrinsic value of stock options exercised was \$778 and the total fair value of stock awards vested was \$1,267 during the fiscal year ended June 30, 2007.

Cash received from stock option exercises and the associated tax benefit for the fiscal year ended June 30, 2007 was \$962.

Restricted Stock

The following table summarizes information about restricted stock awards granted under share-based compensation plans for the fiscal years ended June 30, 2007 and 2006:

	June 30, 2007		June 30, 2006	
	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value
Non vested balance at beginning of year	148,200	\$11.51	—	\$ —
Granted	261,450	\$13.92	154,800	\$11.46
Vested	(8,457)	\$16.33	—	\$ —
Forfeited	(33,017)	\$13.86	(6,600)	\$10.40
Non vested balance at end of year	<u>368,176</u>	<u>\$12.90</u>	<u>148,200</u>	<u>\$11.51</u>

As of June 30, 2007, there was \$3,600 of total unrecognized compensation costs related to restricted stock awards. These costs are expected to be recognized over a weighted average period of 2.8 years.

At June 30, 2007, an aggregate of 1,948,062 shares remained available for future grants under our share-based compensation plans, which cover stock awards and stock options. We issue shares to satisfy stock option exercises and restricted stock awards, as applicable.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 14: EMPLOYEE STOCK PURCHASE PLAN

In November 2000, we adopted a non-compensatory Employee Stock Purchase Plan (“ESPP”). Under the ESPP, employees who elect to participate have the ability to purchase common stock at a 5% discount from the market value of such stock (15% discount from the market value for the period from November 2000 until June 30, 2005). The ESPP permits an enrolled employee to make contributions to purchase shares of common stock by having withheld from his or her salary an amount between 1% and 10% of compensation. The total number of shares of common stock that may be issued under the ESPP is 500,000. At June 30, 2007 and 2006, we had withheld from employees \$145 and \$163, respectively, for the purchases of shares under this plan, and in July 2007 and 2006, we issued approximately 10,325 and 10,278 shares of common stock, respectively.

NOTE 15: INCOME TAXES

Total income tax expense (benefit) for each year is as follows:

	Fiscal Year Ended June 30,		
	<u>2007</u>	<u>2006</u>	<u>2005</u>
Earnings from continuing operations	\$9,132	\$5,849	\$5,694
Discontinued operations	—	—	(85)
Disposal of discontinued operations	—	—	(43)
Amounts charged to stockholders’ equity	<u>(164)</u>	<u>(229)</u>	<u>(38)</u>
	<u>\$8,968</u>	<u>\$5,620</u>	<u>\$5,528</u>

The income tax expense (benefit) for operations listed above were provided on the following pre-tax book income amounts:

	Fiscal Year Ended June 30,		
	<u>2007</u>	<u>2006</u>	<u>2005</u>
Earnings from continuing operations - U.S.	\$21,612	\$17,759	\$11,926
Loss from discontinued operations - U.S.	—	—	(494)
Earnings from foreign operations	<u>3,638</u>	<u>3,367</u>	<u>3,869</u>
	<u>\$25,250</u>	<u>\$21,126</u>	<u>\$15,301</u>

The provision for income taxes consists of the following:

	Fiscal Year Ended June 30,		
	<u>2007</u>	<u>2006</u>	<u>2005</u>
Current:			
Federal	\$ 403	\$ 382	\$ 215
State	325	158	111
Foreign	<u>1,626</u>	<u>1,264</u>	<u>1,467</u>
	<u>2,354</u>	<u>1,804</u>	<u>1,793</u>
Deferred:			
Federal	6,411	4,006	3,830
State	439	118	(72)
Foreign	<u>(72)</u>	<u>(79)</u>	<u>143</u>
	<u>6,778</u>	<u>4,045</u>	<u>3,901</u>
Total	<u>\$9,132</u>	<u>\$5,849</u>	<u>\$5,694</u>

Income tax payments, net of refunds, were \$3,272, \$1,316, and \$765 in fiscal 2007, 2006, and 2005, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 15: INCOME TAXES (Continued)

The total income tax expense differs from the amount computed by applying the applicable U.S. federal income tax rate of 35% in fiscal 2007, 2006, and 2005 to earnings before income taxes for the following reasons:

	Fiscal Year Ended June 30,		
	<u>2007</u>	<u>2006</u>	<u>2005</u>
Computed "expected tax expense"	\$8,837	\$ 7,394	\$5,529
Increases (reductions) in taxes resulting from:			
State taxes, net of federal income tax benefit	497	179	26
Export tax incentives	(372)	(2,034)	(347)
Research credit	(62)	—	—
Tax on foreign dividend	—	326	328
Change in estimate of future year taxes	—	—	(129)
Foreign tax differential	208	(68)	217
Other, net	24	52	70
	<u>\$9,132</u>	<u>\$ 5,849</u>	<u>\$5,694</u>

During fiscal 2006, the Company completed a redetermination of its fiscal 2005 and 2004 Extraterritorial Income Exclusion ("EIE"). Due to this redetermination, the Company recorded a tax benefit of \$1,192. The Company's tax rate for fiscal 2007 was negatively impacted by the repeal of the EIE. The Company claimed a benefit on foreign trading income from foreign sales through December 31, 2006. The Company does not expect any significant tax benefit from the Manufacturing Deduction as provided in IRC Sec. 199 due to its NOL position.

During fiscal 2006, the Company released a foreign tax reserve of \$328 upon the completion of the taxing authorities' audit in the foreign jurisdiction.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities as of June 30, 2007 and 2006 are presented below:

	<u>June 30, 2007</u>	<u>June 30, 2006</u>
Deferred tax assets:		
Accounts receivable	\$ 93	\$ 195
Accrued liabilities	1,497	1,216
Inventory valuation	3,210	2,729
Deferred revenue	160	625
Stock option compensation	1,190	592
Intangibles	20	30
Federal, foreign, and state net operating loss carryforwards ("NOL") and credits	20,321	27,246
Contributions	33	60
	<u>26,524</u>	<u>32,693</u>
Less valuation allowance	2,170	1,630
Deferred tax asset	<u>24,354</u>	<u>31,063</u>
Deferred tax liabilities:		
Prepaid expenses	(136)	(301)
Plant and equipment	(3,441)	(3,363)
Unrealized gain on marketable securities	—	(7)
Deferred tax liability	<u>(3,577)</u>	<u>(3,671)</u>
Net deferred tax asset	<u>\$20,777</u>	<u>\$27,392</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 15: INCOME TAXES (Continued)

The net current deferred tax assets and net non-current deferred tax assets as recorded on the balance sheet as of June 30, 2007 and 2006 are as follows:

	June 30, 2007	June 30, 2006
Net current deferred tax asset	\$15,077	\$11,959
Net noncurrent deferred tax asset	5,700	15,433
Net deferred tax asset	<u>\$20,777</u>	<u>\$27,392</u>

The deferred tax provisions for 2007 and 2006 do not reflect the tax benefit of \$164 and \$229, respectively, resulting from amounts charged to other comprehensive income and paid in capital, which includes \$164 and \$189 from the exercise of employee stock options in 2007 and 2006, respectively.

During 2007, the valuation allowance changed primarily due to the generation of additional tax credits that were fully valued, along with the utilization of fully valued net operating losses.

Management believes it is more likely than not that the remaining net deferred tax assets of \$20,777 as of June 30, 2007 will be realized as the results of future operations are expected to generate sufficient taxable income to do so.

At June 30, 2007, our share of the cumulative undistributed earnings of foreign subsidiaries was \$2,654. No provision has been made for U.S. or additional foreign taxes on the undistributed earnings of foreign subsidiaries because we intend to continue to reinvest these earnings. Determination of the amount of unrecognized deferred tax liability associated with these earnings is not practicable.

At June 30, 2007, we have federal, foreign, and state NOL carryforwards of approximately \$29,928, \$351, and \$22,681, respectively, and various state credit carryforwards of \$5,879. The federal NOL will expire from fiscal 2022 through fiscal 2025, while the state NOL and credits will expire from fiscal 2007 through fiscal 2025. The foreign NOL will begin to expire in 2014. We also have federal general business credit carryforwards of approximately \$4,763, which are available to reduce federal income taxes, if any, through 2019 and begin to expire in 2012. In addition, the Company also has alternative minimum tax credit carryforwards of approximately \$788, which are available to reduce future federal regular income taxes, if any, over an indefinite period.

NOTE 16: SEGMENT REPORTING

During the second quarter of fiscal 2007, we reorganized the business into two operating divisions – Metrology Solutions Division (Metrology segment) and Optical Systems Division (Optics segment). Consistent with our new business structure, beginning with the second quarter in fiscal 2007, we reported our segments as Metrology and Optics. The Metrology segment consists of OEM and in-line products primarily for the semiconductor and industrial markets. The Optics segment consists of components and opto-mechanical assemblies primarily for the medical, defense, and aerospace industries, which are included in the industrial market. The chief operating decision-maker uses this information to allocate resources. Prior to the second quarter, our segments were reported as Semiconductor and Industrial. Prior year segment information has been restated in a manner consistent with our new reporting segments.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 16: SEGMENT REPORTING (Continued)

	Fiscal Year Ended June 30,		
	<u>2007</u>	<u>2006</u>	<u>2005</u>
Metrology		(as restated)	(as restated)
Sales	\$132,264	\$125,880	\$104,421
Gross profit	62,189	56,818	46,442
Gross profit as a % of sales	47%	45%	44%
Optics			
Sales	\$ 48,724	\$42,257	\$ 36,928
Gross profit	14,994	8,953	6,848
Gross profit as a % of sales	31%	21%	19%
Total			
Sales	\$180,988	\$168,137	\$141,349
Gross profit	77,183	65,771	53,290
Gross profit as a % of sales	43%	39%	38%

Separate financial information by segment for total assets, capital expenditures, and depreciation and amortization is not available and is not evaluated by the chief operating decision-maker.

Substantially all of our operating results, assets, depreciation, and amortization are U.S. based. Sales by geographic area based on shipping destination were as follows:

	Fiscal Year Ended June 30,		
	<u>2007</u>	<u>2006</u>	<u>2005</u>
Domestic	\$ 71,330	\$ 58,446	\$ 47,973
Far East:			
Japan	66,613	76,595	61,115
Pacific Rim	23,985	18,233	17,303
Total Far East	90,598	94,828	78,418
Europe	19,060	14,863	14,958
Total	\$180,988	\$168,137	\$141,349

NOTE 17: TRANSACTIONS WITH STOCKHOLDER

Sales to Canon, Inc., a stockholder representing approximately 7% ownership at June 30, 2007, and Canon Sales Co., Inc., a distributor of certain of our products in Japan and a subsidiary of Canon Inc. (collectively "Canon"), amounted to \$48,147 (27% of net sales) \$61,366 (36% of net sales), and \$51,887 (37% of net sales), for the years ended June 30, 2007, 2006, and 2005, respectively. Selling prices of products sold to Canon are based, generally, on the normal terms given to distributors. Revenues generated from development contracts are recorded on a cost-plus basis.

In September 2002, we entered into a contract with Canon related to the development of certain interferometers. In March 2004, we signed a preliminary agreement to begin further add-on work; the definitive agreement for this additional work was signed in December 2004. In February 2005, we entered into two additional agreements with Canon related to the development of prototype production tools and accessories. Work on these development services was completed during the third quarter of fiscal 2007. During fiscal 2007, 2006, and 2005, we recognized revenue in the Metrology segment of \$4,051, \$20,014, and \$15,617, respectively, for the original contract and subsequent add-on work. At June 30, 2007 and 2006, there were, in the aggregate, \$4,515 and \$5,966, respectively, of trade accounts receivable from Canon.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

NOTE 18: HEDGING ACTIVITIES

We enter into foreign currency forward contracts to reduce the impact of adverse fluctuations on earnings associated with foreign currency exchange rate changes. We do not enter into any derivative transactions for speculative purposes. These contracts are not designated as cash flow, fair value, or net investment hedges under SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," as amended, and therefore, are marked-to-market with changes in fair value recorded to earnings. These contracts are entered into for periods consistent with the currency transaction exposures, generally three to six months. Any gains and losses on the fair value of these contracts would largely offset corresponding losses and gains on the underlying transactions.

As of June 30, 2007, we had eight foreign currency forward contracts outstanding aggregating to \$8,500. Net unrealizable gains recognized from foreign currency forward contracts for fiscal 2007 was \$148, and are included in other income in the consolidated statements of operations. These gains are substantially offset by foreign exchange losses on intercompany balances recorded by our subsidiaries.

NOTE 19: QUARTERLY RESULTS (UNAUDITED)

The following table sets forth certain unaudited quarterly financial data:

	<u>For the Fiscal Year Ended June 30, 2007</u>			
	<u>September 30,</u>	<u>December 31,</u>	<u>March 31,</u>	<u>June 30,</u>
Net sales	<u>\$41,107</u>	<u>\$44,682</u>	<u>\$48,655</u>	<u>\$46,544</u>
Gross profit	<u>\$17,791</u>	<u>\$19,767</u>	<u>\$20,411</u>	<u>\$19,214</u>
Net earnings	<u>\$ 3,652</u>	<u>\$ 3,714</u>	<u>\$ 3,966</u>	<u>\$ 3,810</u>
Basic earnings per share	<u>\$ 0.20</u>	<u>\$ 0.20</u>	<u>\$ 0.22</u>	<u>\$ 0.21</u>
Diluted earnings per share	<u>\$ 0.20</u>	<u>\$ 0.20</u>	<u>\$ 0.21</u>	<u>\$ 0.20</u>
	<u>For the Fiscal Year Ended June 30, 2006</u>			
	<u>September 30,</u>	<u>December 31,</u>	<u>March 31,</u>	<u>June 30,</u>
Net sales	<u>\$34,329</u>	<u>\$43,608</u>	<u>\$43,048</u>	<u>\$47,152</u>
Gross profit	<u>\$13,153</u>	<u>\$17,192</u>	<u>\$16,447</u>	<u>\$18,979</u>
Net earnings	<u>\$ 2,193</u>	<u>\$ 3,680</u>	<u>\$ 4,097</u>	<u>\$ 4,515</u>
Basic earnings per share	<u>\$ 0.12</u>	<u>\$ 0.20</u>	<u>\$ 0.23</u>	<u>\$ 0.25</u>
Diluted earnings per share	<u>\$ 0.12</u>	<u>\$ 0.20</u>	<u>\$ 0.22</u>	<u>\$ 0.24</u>

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Zygo Corporation
Middlefield, Connecticut

We have audited the consolidated financial statements of Zygo Corporation and subsidiaries (the "Company") as of June 30, 2007 and 2006, and for each of the two years in the period ended June 30, 2007, and the Company's internal control over financial reporting as of June 30, 2007, and have issued our report thereon dated September 19, 2007 (which report expresses an unqualified opinion and includes an explanatory paragraph concerning the change in the Company's method of accounting for stock options); such consolidated financial statements and report is included elsewhere in this Form 10-K. Our audits also included the consolidated financial statement schedule of the Company listed on page F-1 of this Form 10-K. This consolidated financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion based on our audits. In our opinion, such consolidated financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

/s/ Deloitte & Touche LLP
Hartford, Connecticut
September 19, 2007

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON SCHEDULE II

The Board of Directors and Stockholders
Zygo Corporation:

Under date of September 7, 2005, except as to notes 2 and 16 (as it relates to 2005 disclosures) to the consolidated financial statements which are as of June 20, 2006 and September 10, 2007, respectively, we reported on the consolidated statements of operations, stockholders' equity and cash flows of Zygo Corporation and subsidiaries for the year ended June 30, 2005 as contained in the 2007 Annual Report on Form 10-K. In connection with our audit of the aforementioned consolidated financial statements, we also audited the related consolidated financial statement schedule listed in the accompanying index on page F-1. This financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement schedule based on our audit.

In our opinion, this financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ KPMG LLP
Stamford, Connecticut

September 7, 2005, except as to notes 2 and 16 (as it relates to 2005 disclosures) to the consolidated financial statements which are as of June 20, 2006 and September 10, 2007, respectively

**ZYGO CORPORATION AND CONSOLIDATED SUBSIDIARY
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS**

Years ended June 30, 2007, 2006, and 2005

(Thousands of dollars)

<u>Description</u>	<u>Balance at Beginning of Year</u>	<u>Provision</u>	<u>Write-Offs and Other</u>	<u>Balance at End of Year</u>
Year Ended June 30, 2007				
Allowance for doubtful accounts	\$ 588	\$(245)	\$ 10	\$ 333
Valuation allowance on net deferred tax assets	\$1,630	\$ 564	\$ 24	\$2,170
Year Ended June 30, 2006				
Allowance for doubtful accounts	\$ 663	\$ 65	\$ 140	\$ 588
Valuation allowance on net deferred tax assets	\$2,011	\$ 416	\$ 797	\$1,630
Year Ended June 30, 2005				
Allowance for doubtful accounts	\$ 707	\$ (11)	\$ 33	\$ 663
Valuation allowance on net deferred tax assets	\$3,383	\$ —	\$1,372	\$2,011

EXHIBIT INDEX

EXHIBIT
TABLE
NUMBER

10.23	Employment contract dated June 15, 2007 between Zygo Corporation and Walter A. Shephard.
21	Subsidiaries of Registrant
23.1	Consent of Independent Registered Public Accounting Firm
23.2	Consent of Independent Registered Public Accounting Firm
31.1	Certification Pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification Pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

EMPLOYMENT AGREEMENT

AGREEMENT made as of June 15, 2007 between ZYGO CORPORATION, a Delaware corporation with an office at Laurel Brook Road, Middlefield, Connecticut 06455 (the "Company"), and WALTER A. SHEPHARD, residing at 26 Harbor View Drive, Essex, Connecticut 06426 (the "Executive").

WITNESSETH

WHEREAS, the Company desires that Executive be employed to serve in a senior executive capacity with the Company, and Executive desires to be so employed by the Company upon the terms and conditions herein set forth.

NOW, THEREFORE, in consideration of the premises and of the mutual promises, representations and covenants herein contained, the parties hereto agree as follows:

1. EMPLOYMENT

The Executive has served as the Vice President, Finance, Chief Financial Officer and Treasurer since February 2004, reporting to the Chief Executive Officer of the Company and the Company desires to continue to employ Executive and Executive desires to continue such employment, subject to the terms and conditions herein set forth.

2. TERM

The initial term of employment under this Agreement shall begin on the effective date of this Agreement (the "Employment Date"), and shall continue for a period of one year from that date, subject to prior termination in accordance with the terms hereof. Thereafter, this Agreement shall automatically be renewed for successive one year terms, subject to prior termination in accordance with the terms hereof, unless either party shall give the other thirty (30) days prior written notice of its or his intent not to renew this Agreement. The initial one- year term together with all such additional one-year period(s) of employment, if any, are collectively referred to herein as the "term" of this Agreement.

3. COMPENSATION

As compensation for the employment services to be rendered by Executive hereunder, the Company agrees to pay, or cause to be paid, to Executive, and Executive agrees to accept, payable in equal installments in accordance with Company practice, an annual salary which shall in no event be less than \$244,200, or such higher amount as the Board of Directors may determine from time to time. In addition, Executive shall be entitled to additional contingent compensation from time to time in accordance with the terms of the Company's Management Incentive Plan applicable to Executive ("MIP"), as the same may be amended from time to time by the Compensation Committee of the Board. (The MIP could potentially be worth a maximum of fifty percent (50%) of Executive's base pay at target with an upside potential if all goals are achieved. This bonus is based upon the achievement of corporate and individual goals established prior to the start of each fiscal year, which begins on July 1 of each year.)

4. EXPENSES

The Company shall pay or reimburse Executive, upon presentment of suitable vouchers, for all reasonable business and travel expenses which may be incurred or paid by Executive in connection with his employment hereunder. Executive shall comply with such restrictions and shall keep such records as the Company may deem necessary to meet the requirements of the Internal Revenue Code of 1986, as amended from time to time, and regulations promulgated thereunder.

5. AUTOMOBILE

The Company shall, during the term of Executive's employment hereunder, provide Executive with a monthly automobile allowance in the amount of \$900 and a mileage reimbursement of \$.10 per mile for Company use of an automobile. This car allowance is considered taxable income and therefore will have regular payroll taxes deducted.

6. INSURANCE AND OTHER BENEFITS

Executive shall be entitled to such vacations and to participate in and receive any other benefits customarily provided by the Company (including, but not limited to, a 401(k) plan, an employee stock purchase plan (sometimes referred to as the "Zygo Shares Plan"), a Section 125(c) pre-tax insurance premium and health/dependent care reimbursement program, profit sharing, health insurance, dental coverage, life insurance, AD&D, short and long-term disability, tuition reimbursement program, and travel accident insurance in accordance with the terms of such plans) and including stock options, restricted shares, all as determined from time to time by the Board of Directors of the Company. Unused annual vacations may be carried over to the extent permitted by Company policy.

7. CHANGE IN CONTROL

(a) Definition. A "Change in Control" shall mean the occurrence of any of the following events:

(i) The Company is merged with or consolidated with another corporation in a transaction in which (x) the Company is not the surviving corporation, and (y) the Company's stockholders immediately prior to such transaction do not own at least 70% of the outstanding voting securities of the surviving corporation immediately following the transaction; or

(ii) Any person or entity or affiliated group of persons or entities becomes the holder of more than 51% of the Company's outstanding shares of Common Stock.

Payments. If a Change in Control occurs during the term of the Executive's Employment pursuant to this Agreement then, if Executive resigns or is terminated for other than "justifiable cause" (as defined in Section 11(d) hereof) for any reason within one year after the Change in Control, the Company shall (a) continue existing health insurance and dental coverage, provided that should the Executive elects COBRA and fulfills his obligations to make payments as required, the Company will contribute toward the premium for continued health and dental insurance coverage for the Executive at the rate the Company contributes for active employees for either the period for which the Executive receives severance payments or until the Executive elects another health and dental insurance policy, b) continue the Executive's salary for a one year period; provided, however that during the applicable period in which benefits are being paid by the Company, Executive agrees to maintain a consulting relationship with the Company which shall not interfere with other obligations of the Executive (c) pay the Executive a pro-rated bonus (based on the target bonus amount for the fiscal year in which the change of control occurs providing Executive is still employed 90 days after the change of control).

8. DUTIES

(a) Executive shall perform such duties and functions as the President and Chief Executive Officer and Board of Directors of the Company shall from time to time determine and Executive shall comply in the performance of his duties with the policies of, and be subject to, the direction of the President and Chief Executive Officer and the Board of Directors.

(b) Executive agrees to devote substantially all his working time, attention and energies to the performance of the business of the Company and of any of its subsidiaries by which he may be employed; and Executive shall not, directly or indirectly, alone or as a member of any partnership or other organization, or as an officer, director or employee of any other corporation, partnership or other organization, be actively engaged in or concerned with any other duties or pursuits which interfere with the performance of his duties hereunder, or which, even if non- interfering, may be inimical, or contrary, to the best interests of the Company, except those duties or pursuits specifically authorized by the Board of Directors.

(c) All fees, compensation or commissions for personal services (excluding existing fees, if any, that Executive is receiving from present Board of Director positions) received by Executive during the term of this Agreement shall be paid to the Company when received by Executive, except those fees that the Board of Directors determines may be kept by Executive. Executive will obtain the approval of the Board of Directors before accepting any director positions. This provision shall not be construed to prevent Executive from investing or trading in non-conflicting investments as he sees fit for his own account, including real estate, stocks, bonds, securities, commodities or other forms of investments.

9. **TERMINATION OF EMPLOYMENT; EFFECT OF TERMINATION**

(a) Executive's employment hereunder may be terminated at any time upon written notice from the Company to Executive,

(i) upon the determination by the Board of Directors that Executive's performance of his duties has not been fully satisfactory for any reason which would not constitute 'justifiable cause' (as hereinafter defined) upon five (5) days' prior written notice to Executive.

(b) Executive's employment shall terminate upon:

(i) the death of the Executive;

(ii) the "disability" of Executive (as hereinafter defined pursuant to subsection (c) herein); and the determination by the Board of Directors that "justifiable cause" exists therefor.

(c) For the purposes of this Agreement, the term "disability" shall mean the inability of Executive, due to illness, accident or any other physical or mental incapacity, to perform the essential functions of his job, with or without a reasonable accommodation, for a period of three (3) consecutive months or for a total of six (6) months (whether or not consecutive) in any twelve (12) month period during the term of this Agreement.

(d) For the purposes hereof, the term "justifiable cause" shall mean and be limited to: any willful breach by Executive of the performance of any of his duties pursuant to this Agreement; Executive's conviction (which, through lapse of time or otherwise, is not subject to appeal) of any crime or offense involving money or other property of the Company or its subsidiaries or which constitutes a felony in the jurisdiction involved; Executive's performance of any act or his failure to act, for which if he were prosecuted and convicted, a crime or offense involving money or property of the Company or its subsidiaries, or which constitutes a felony in the jurisdiction involved, would have occurred; any disclosure by Executive to any person, firm or corporation other than the Company, its subsidiaries and its and their directors, officers and employees, of any confidential information or trade secret of the Company or any of its subsidiaries; any attempt by Executive to secure any personal profit in connection with the business of the Company or any of its subsidiaries; and the engaging by Executive in any business other than the business of the Company and its subsidiaries which interferes with the performance of his duties hereunder

(e) If Executive shall die during the term of his employment hereunder, this Agreement shall terminate immediately. In such event, the estate of Executive shall thereupon be entitled to receive such portion of Executive's annual salary as has been accrued but remains unpaid through the date of his death.

(f) Upon Executive's "disability", the Company shall have the right to terminate Executive's employment. Notwithstanding any inability to perform his duties, Executive shall be entitled to receive his compensation as provided herein until the termination of his employment for disability. Any termination pursuant to this subsection (f) shall be effective on the date 30 days after which Executive shall have received written notice of the Company's rightful election to terminate.

(g) Notwithstanding any provision to the contrary contained herein, in the event that Executive's employment is terminated by the Company at any time for any reason other than justifiable cause, disability or death, the Company shall (i) pay Executive's salary (payable in such amount and in such manner as set forth in Section 3 herein) from and after the date of such termination through a period ending one (1) year after the date of termination, which amount shall be in lieu of any and all other payments due and owing to

Executive under the terms this Agreement (other than any payments contemplated by Sections 8(b) and 11(e), as applicable).

(h) Upon the termination of Executive's employment hereunder for "justifiable cause," this Agreement shall terminate immediately.

10. REPRESENTATIONS AND AGREEMENTS OF EXECUTIVE

(a) Executive represents and warrants that he is free to enter into this Agreement and to perform the duties required hereunder, and that there are no employment contracts or understandings, restrictive covenants or other restrictions, whether written or oral, preventing the performance of his duties hereunder. Executive agrees to execute the form of Non-Solicitation Agreement in the form of Exhibit A hereto, and the Certifications concerning the Revised Statement of Company Policy Regarding Insider Information and Stock Trading by Company Personnel, a copy of which is annexed hereto as Exhibit B. Executive further represents and warrants that he will comply with the Zygo Code of Business Conduct and Ethics and that he is in full compliance with all existing agreements, if any, between himself and the Company.

(b) Executive agrees to submit to a medical examination and to cooperate and supply such other information and documents as may be required by any insurance company in connection with the Company's obtaining life insurance on the life of Executive, and any other type of insurance or fringe benefit as the Company shall determine from time to time to obtain.

11. NON-COMPETITION

(a) Executive agrees that during his employment by the Company (which shall be deemed to include the period in which Executive is receiving any severance payments set forth in Section 10(g) hereto), and for a period of one (1) year after the termination of Executive's employment hereunder (or, if applicable, after the final severance payment) (the "Non-Competitive Period"), Executive shall not, directly or indirectly, as owner, partner, joint venturer, stockholder, employee, broker, agent, principal, trustee, corporate officer, director, licensor, or in any capacity whatsoever engage in, become financially interested in, be employed by, render any consultation or business advice with respect to, or have any connection with, any business engaged in the research, development, testing, design, manufacture, sale, lease, marketing, utilization or exploitation of any products or services which are designed for the same purpose as, are similar to, or are otherwise competitive with, products or services of the Company or any of its subsidiaries, in any geographic area where, at the time of the termination of his employment hereunder, the business of the Company or any of its subsidiaries was being conducted or was proposed to be conducted in any manner whatsoever; provided, however, that Executive may own any securities of any corporation which is engaged in such business and is publicly owned and traded but in an amount not to exceed at any one time one percent (1%) of any class of stock or securities of such corporation. In addition, Executive shall not, directly or indirectly, during the Non-Competitive Period, request or cause contracting parties, suppliers or customers with whom the Company or any of its subsidiaries has a business relationship to cancel or terminate any such business relationship with the Company or any of its subsidiaries or solicit, interfere with or entice from the Company any employee (or former employee) of the Company.

(b) Executive acknowledges that the Company conducts business on a world-wide basis, that its sales and marketing prospects are for continued expansion into world markets and that, therefore, the territorial and time limitations set forth in this Section 12 are reasonable and properly required for the adequate protection of the business of the Company and its subsidiaries. In the event any such territorial or time limitation is deemed to be unreasonable by a court of competent jurisdiction, Executive agrees to the reduction of the territorial or time limitation to the area or period which such court deems reasonable.

(c) If any portion of the restrictions set forth in this Section 12 should, for any reason whatsoever, be declared invalid by a court of competent jurisdiction, the validity or enforceability of the remainder of such restrictions shall not thereby be adversely affected.

12. NON-DISCLOSURE AND INVENTIONS AND DISCOVERIES AGREEMENT

Executive will execute the form of Zygo Corporation Non-Disclosure and Assignment of Inventions Agreement USA” in the form of Exhibit C hereto.

13. RIGHT TO INJUNCTION

Executive recognizes that the services to be rendered by him hereunder are of a special, unique, unusual, extraordinary and intellectual character involving skill of the highest order and giving them peculiar value the loss of which cannot be adequately compensated for in damages. In the event of a breach of this Agreement by Executive, the Company shall be entitled to injunctive relief or any other legal or equitable remedies. Executive agrees that the Company may recover by appropriate action the amount of the actual damage caused the Company by any failure, refusal or neglect of Executive to perform his agreements, representations and warranties herein contained. The remedies provided in this Agreement shall be deemed cumulative and the exercise of one shall not preclude the exercise of any other remedy at law or in equity for the same event or any other event.

14. AMENDMENT OR ALTERATION

No amendment or alteration of the terms of this Agreement shall be valid unless made in writing and signed by both of the parties hereto.

15. GOVERNING LAW

This Agreement shall be governed by the laws of the State of Connecticut applicable to agreements made and to be performed therein.

16. SEVERABILITY

The holding of any provision of this Agreement to be invalid or unenforceable by a court of competent jurisdiction shall not affect any other provision of this Agreement, which shall remain in full force and effect.

17. NOTICES

Any notices required or permitted to be given hereunder shall be sufficient if in writing, and if delivered by hand, or sent by certified mail, return receipt requested, to the addresses set forth above or such other address as either party may from time to time designate in writing to the other, and shall be deemed given as of the date of the delivery or mailing.

18. WAIVER OR BREACH

It is agreed that a waiver by either party of a breach of any provision of this Agreement shall not operate, or be construed, as a waiver of any subsequent breach by that same party.

19. ENTIRE AGREEMENT AND BINDING EFFECT

This Agreement contains the entire agreement of the parties with respect to the subject matter hereof and shall be binding upon and inure to the benefit of the parties hereto and their respective legal representatives, heirs, distributors, successors and assigns. Notwithstanding the foregoing, all prior agreements, if any, between Executive and the Company relating to the confidentiality of information, trade secrets and patents shall not be affected by this Agreement.

20. SURVIVAL

The termination of Executive’s employment hereunder shall not affect the enforceability of Sections 7, 8, 10, 12, 13 and 14 hereof.

21. **FURTHER ASSURANCES**

The parties agree to execute and deliver all such further documents, agreements and instruments and take such other and further action as may be necessary or appropriate to carry out the purposes and intent of this Agreement.

22. **HEADINGS**

The section headings appearing in this Agreement are for the purposes of easy reference and shall not be considered a part of this Agreement or in any way modify, demand or affect its provisions.

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

ZYGO CORPORATION

By: /s/ J. Bruce Robinson

J. Bruce Robinson,
Chief Executive Officer

EXECUTIVE:

/s/ Walter A. Shephard

Walter A. Shephard

SUBSIDIARIES OF ZYGO CORPORATION (DELAWARE)

Technical Instrument Company (California)

100% owned by Registrant (effective as of August 8, 1996)

Syncotec Neue Technologien und Instrumente GmbH

100% owned by Technical Instrument Company (effective as of September 1, 1997)

NexStar Corporation (Colorado)

100% owned by Registrant (effective as of September 12, 1996)

TechniStar Corporation (Delaware)

25% owned by NexStar Corporation

Zygo TeraOptix, Inc. (Delaware)

100% owned by Registrant (effective as of May 5, 2000)

Zygo KK

100% owned by Registrant (effective as of October 1, 1999)

Zygo PTE

100% owned by Registrant (effective as of January 1, 1998)

Zygo Germany, GmbH

100% owned by Registrant (effective as of December 1, 2006)

ZygoLOT GmbH

60% owned by Zygo Germany, GmbH (effective as of December 28, 2006)

Six Brookside Drive (Connecticut)

100% owned by Registrant (effective as of January 9, 1998)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements No. 333-105180, No. 333-51990, No. 333-44333, No. 33-62087, No. 33-57060, No. 33-20880 and No. 33-34619 on Form S-8 of our report dated September 19, 2007, (which expresses an unqualified opinion and includes an explanatory paragraph concerning the change in the Company's method of accounting for stock options), relating to the financial statements of Zygo Corporation appearing in the Annual Report on Form 10-K of Zygo Corporation for the year ended June 30, 2007.

/s/ Deloitte & Touche LLP
Hartford, Connecticut
September 19, 2007

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
Zygo Corporation:

We consent to incorporation by reference in Registration Statements No. 333-105180, No. 333-51990, No. 333-44333, No. 33-62087, No. 33-57060, No. 33-20880, and No. 33-34619 on Forms S-8 of Zygo Corporation of our report dated September 7, 2005, except as to Notes 2 and 16 (as it relates to 2005 disclosures) to the consolidated financial statements which are as of June 20, 2006 and September 10, 2007, respectively, with respect to the consolidated statements of operations, stockholders' equity, and cash flows and related schedule for the year ended June 30, 2005, which reports appear in the June 30, 2007 Annual Report on Form 10-K of Zygo Corporation.

/s/ KPMG LLP
Stamford, Connecticut
September 19, 2007

**CERTIFICATION PURSUANT TO RULE 13A-14(A) OR 15D-14(A) OF THE SECURITIES
EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, J. Bruce Robinson, certify that:

- 1) I have reviewed this annual report on Form 10-K of Zygo Corporation;
- 2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: September 19, 2007

/s/ J. Bruce Robinson
J. Bruce Robinson
Chairman and Chief Executive Officer

**CERTIFICATION PURSUANT TO RULE 13A-14(A) OR 15D-14(A) OF THE SECURITIES
EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Walter A. Shephard, certify that:

- 1) I have reviewed this annual report on Form 10-K of Zygo Corporation;
- 2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: September 19, 2007

/s/ Walter A. Shephard
Walter A. Shephard
Vice President, Finance,
Chief Financial Officer, and Treasurer

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, J. Bruce Robinson, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Zygo Corporation on Form 10-K for the fiscal year ended June 30, 2007, as filed with the Securities and Exchange Commission (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Zygo Corporation.

A signed original of this written statement required by Section 906 has been provided to Zygo Corporation and will be retained by Zygo Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

Dated: September 19, 2007

/s/ J. Bruce Robinson
J. Bruce Robinson
Chairman and Chief Executive Officer of
Zygo Corporation

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Walter A. Shephard, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Zygo Corporation on Form 10-K for the fiscal year ended June 30, 2007, as filed with the Securities and Exchange Commission (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Zygo Corporation.

A signed original of this written statement required by Section 906 has been provided to Zygo Corporation and will be retained by Zygo Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

Dated: September 19, 2007

/s/ Walter A. Shephard
Walter A. Shephard
Vice President, Finance,
Chief Financial Officer, and Treasurer of
Zygo Corporation