

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

FORM 10-K/A

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

For the fiscal year ended September 30, 1999

☐ 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: 0-22175

EMCORE CORPORATION  
(Exact name of registrant as specified in its charter)

NEW JERSEY	22-2746503
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

394 ELIZABETH AVENUE, SOMERSET, NJ 08873  
(Address of principal executive offices) (zip code)

Registrant's telephone number, including area code:	(732) 271-9090
Securities registered pursuant to Section 12(b) of the Act:	NONE
Securities registered pursuant to Section 12(g) of the Act:	COMMON STOCK, NO PAR VALUE

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein and will not be contained, to the best of the 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. ☐

The aggregate market value of common stock held by non-affiliates of the registrant as of December 1, 1999 was approximately \$205,186,625 (based on the closing sale price of \$23 15/16 per share).

The number of shares outstanding of the registrant's no par value common stock as of December 1, 1999 was 13,565,769.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2000 Annual Meeting of Shareholders (to be filed with the Securities and Exchange Commission on or before January 28, 2000) are incorporated by reference in Part III of this Form 10-K/A.

CAUTIONARY STATEMENT IDENTIFYING IMPORTANT FACTORS  
THAT COULD CAUSE EMCORE'S ACTUAL RESULTS TO DIFFER  
FROM THOSE PROJECTED IN FORWARD-LOOKING STATEMENTS:

In connection with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, you are advised that this report contains both statements of historical facts and forward looking statements.

This report includes forward-looking statements that reflect current expectations or beliefs of EMCORE Corporation concerning future results and events. The words "expects," "intends," "believes," "anticipates," "likely," "will", and similar expressions identify forward-looking statements. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results and events to differ materially from those anticipated in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, delays in developing and commercializing new products; cancellations, rescheduling or delays in product shipments; delays in obtaining export licenses for product shipments; the uncertainty of additional funding; continued acceptance of our MOCVD technologies; operations and performance of our joint ventures; our ability to achieve and implement the planned enhancements of products and services on a timely and cost effective basis and customer acceptance of those product introductions; product obsolescence due to advances in technology and shifts in market demand; competition and resulting price pressures; labor actions against EMCORE's customers or vendors; difficulties in obtaining licenses on commercially reasonable terms necessary to manufacture and sell certain of our products; economic and stock market conditions, particularly in the U.S., Europe and Asia, and their impact on sales of our products and services; and such other risk factors as may have been or may be included from time to time in EMCORE's reports filed with the Securities and Exchange Commission.

ITEM 1. BUSINESS

COMPANY OVERVIEW

EMCORE Corporation designs, develops and manufactures compound semiconductor materials and is a leading developer and manufacturer of the tools and manufacturing processes used to fabricate compound semiconductor wafers and devices. EMCORE's products and technology enable its customers, both in the United States and internationally, to manufacture commercial volumes of high-performance electronic devices using compound semiconductors. EMCORE has recently established a number of strategic relationships through joint ventures, long-term supply agreements and an acquisition in order to facilitate the development and manufacture of new products in targeted growth markets. EMCORE's products are used for a wide variety of applications in the communications (satellite, data, telecommunications and wireless), consumer and automotive electronics, computers and peripherals and lighting markets. Our customers include Agilent Technologies Ltd., AMP, Inc., Hewlett Packard Co., General Motors Corp., Hughes-Spectrolab, Lucent Technologies, Inc., Motorola, Inc., Siemens AG's Osram GmbH subsidiary and 12 of the largest electronics manufacturers in Japan.

INDUSTRY OVERVIEW

Recent advances in information technologies have created a growing need for efficient, high-performance electronic systems that operate at very high frequencies, have increased storage capacity and computational and display capabilities, and can be produced cost-effectively in commercial volumes. In the past, electronic systems manufacturers have relied on advances in silicon semiconductor technology to meet many of these demands. However, the newest generation of high-performance electronic and optoelectronic applications require certain functions that are generally not achievable using silicon-based components.

Compound semiconductors have emerged as an enabling technology to meet the complex requirements of today's advanced information systems. Many compound semiconductor materials have unique physical properties that allow electrons to move at least four times faster than through silicon-based devices. Advantages of compound semiconductor devices over silicon devices include:

- o operation at higher speeds;
- o lower power consumption;
- o less noise and distortion; and
- o optoelectronic properties that enable these devices to emit and detect light.

Compound semiconductor devices can be used to perform individual functions as discrete devices, such as solar cells, HB LEDs, VCSELs, MR sensors and RF materials. Compound semiconductor devices can also be combined into integrated circuits, such as transmitters, receivers and alphanumeric displays. Although compound semiconductors are more expensive to manufacture than silicon-based devices, electronics manufacturers are increasingly integrating compound semiconductor devices into their products in order to achieve higher performance in applications targeted for a wide variety of markets. These include satellite communications, data communications, telecommunications, wireless communications, consumer and automotive electronics, computers and peripherals, and lighting.

The following factors have resulted in an increased demand for compound semiconductor products and systems that enable electronic systems manufacturers to reach the market faster with large volumes of high-performance products and applications:

- o rapid build-out of satellite communications systems;
- o widespread deployment of fiber optic networks and the increasing use of optical systems within these networks;
- o launch of new wireless services and wireless high speed data systems;
- o increasing use of infrared emitters and optical detectors in computer systems;
- o emergence of advanced consumer electronics applications, such as DVDs and flat panel displays;
- o increasing use of high-performance electronic devices in automobiles; and
- o the anticipated conversion to HB LEDs from incandescent, halogen and compact fluorescent lighting.

The following chart summarizes the principal markets, examples of applications for compound semiconductor devices, products incorporating these devices and certain benefits and characteristics of these devices.

MARKET -----	REPRESENTATIVE APPLICATIONS -----	PRODUCTS -----	BENEFITS/CHARACTERISTICS -----
Satellite communications	Power modules for satellites Satellite to ground communication	Solar cells RF materials	Radiation tolerance Conversion of more light to power than silicon Reduced launch costs Increased bandwidth
Data communications	High-speed fiber optic networks and optical links (including Gigabit Ethernet, asynchronous transfer mode, or ATM, and FibreChannel Networks)	VCSEL components and arrays HB LEDs Lasers RF materials	Increased network capacity Increased data transmission speeds Increased bandwidth
Telecommunications	High capacity fiber optic trunk lines	VCSEL components and arrays Lasers RF materials	Increased data transmission speeds Increased bandwidth
Wireless communication	Cellular telephones Pagers PCS handsets Direct broadcast systems	HB LEDs RF materials	Improved display visibility Improved signal to noise performance Lower power consumption Increased network capacity Reduced network congestion Extended battery life
Consumer electronics	DVDs Radios Telephones Calculators CD-Roms	HB LEDs VCSEL components and arrays Integrated circuits Lasers	Improved display visibility High-speed data transmission Low power requirements
Automotive electronics	Engine sensors Dashboard displays Indicator lights Antilock brake systems	MR sensors HB LEDs	Reduced weight Lower power consumption Lower emissions
Computers and peripherals	Local area networks Chip-to-chip and board-to-board optical links	VCSEL components and arrays Transceivers	Increased data transmission speeds Increased bandwidth
Lighting	Flat panel displays Solid state lighting Outdoor signage and display Digital readout signals	HB LEDs Miniature lamps	Lower power consumption Longer life

#### COMPOUND SEMICONDUCTOR PROCESS TECHNOLOGY

Compound semiconductors are composed of two or more elements and usually consist of a metal such as gallium, aluminum or indium and a non-metal such as arsenic, phosphorous or nitrogen. The resulting compounds include gallium arsenide, indium phosphide, gallium nitride, indium antimonide and indium aluminum phosphide. The performance characteristics of compound semiconductors are dependent on the composition of these compounds. Many of the unique properties of compound semiconductor devices are achieved by the layering of different compound semiconductor materials in the same device. This layered structure creates an optimal configuration to permit the emission or detection of light and the detection of magnetic fields.

Accordingly, the composition and properties of each layer and the control of the layering process, or epitaxy, are fundamental to the performance of advanced electronic and optoelectronic compound semiconductor devices. The variation of thickness and composition of layers determines the intensity and color of the light emitted or detected and the efficiency of power conversion. The ability to vary the intensity, color and efficiency of light generation and detection enables compound semiconductor devices to be used in a broad range of advanced information systems.

Compound semiconductor device manufacturers predominantly use four methods to deposit compound materials: molecular beam epitaxy, vapor phase epitaxy, liquid phase epitaxy and metal organic chemical vapor deposition ("MOCVD"). The use of molecular beam epitaxy technology can yield wafers having high thickness uniformity. Compound semiconductor materials fabricated using liquid phase epitaxy or vapor phase epitaxy technologies often have high electronic and optical properties. However, due to the nature of the underlying processes, these methods are not easily scaled up to high volume production, which is necessary for the commercial viability of compound semiconductor devices. All of the methods used to manufacture compound semiconductor devices pose technical, training and safety challenges that are not present in the manufacture of silicon devices. These production systems typically require expensive reactant materials, the use of certain toxic chemicals, and tight control over numerous manufacturing parameters. The key differences between MOCVD and the three other methods are that compound semiconductor wafers fabricated using MOCVD generally possess a better combination of uniformity and optical and electronic properties and are easier to produce in high volumes than wafers manufactured by the three more traditional methods. Currently, MOCVD technology is being used to manufacture a broad range of compound semiconductor devices.

Historically, manufacturers who use compound semiconductor devices in their products have met research, pilot production and capacity needs with in-house systems and technologies. However, as the need for the production of commercial volumes of high-performance compound semiconductor devices and the variety of these devices grows, manufacturers are often unable to meet these requirements using in-house solutions. In response to these growing demands for higher volumes of a broad range of higher performance devices, manufacturers are increasingly turning to outside vendors to meet their needs for compound semiconductor wafers and devices.

#### THE EMCORE SOLUTION

EMCORE provides its customers with a broad range of compound semiconductor products and services intended to meet their diverse technology requirements. EMCORE has developed extensive materials science expertise, process technology and MOCVD production systems to address our customers' needs and believes that its proprietary TurboDisc(TM) deposition technology makes possible one of the most cost-effective production processes for the commercial volume manufacture of high-performance compound semiconductor wafers and devices. This platform technology provides the basis for the production of various types of compound semiconductor wafers and devices and enables EMCORE to address the critical need of manufacturers to cost-effectively get to market faster with high volumes of new and improved high-performance products. EMCORE's compound semiconductor products and services include:

- o materials and process development;
- o design and development of devices;
- o MOCVD production systems; and
- o manufacture of wafers and devices in high volumes.

Customers can take advantage of EMCORE's vertically integrated approach by purchasing custom-designed wafers and devices from EMCORE or they can manufacture their own devices in-house using a TurboDisc(TM) production system configured to their specific needs.

EMCORE's objective is to capitalize on its position in MOCVD process technology and production systems to become the leading supplier of compound semiconductor wafers, devices and production systems. The key elements of EMCORE's strategy include:

APPLY CORE TECHNOLOGY ACROSS MULTIPLE APPLICATIONS. EMCORE continually leverages its proprietary core technology to develop compound semiconductor products for multiple applications in a variety of markets. These activities include developing new products for targeted applications as well as expanding existing products into new applications. For example, EMCORE's MR sensors, currently used by General Motors Corporation as crank shaft sensors, also have other potential product applications, including as sensors in brushless motors and antilock brakes. Other existing products, which EMCORE intends to introduce in new applications, include VCSELs for communications products and HB LEDs for broader lighting applications.

TARGET HIGH GROWTH MARKET OPPORTUNITIES. EMCORE's strategy is to target high growth market opportunities where performance characteristics and high volume production efficiencies can give compound semiconductors a competitive advantage over other devices. Historically, while technologically superior, compound semiconductors have not been widely deployed because they are more expensive to manufacture than silicon-based semiconductors and other existing solutions. EMCORE believes that as compound semiconductor production costs are reduced, new customers will be compelled to use these solutions because of their higher performance characteristics. For example, EMCORE has reduced the average cost of compound semiconductor solar cells to the point that customers are replacing silicon-based solar cells because of the compound semiconductor solar cells' higher overall efficiency and lower weight.

PARTNER WITH KEY INDUSTRY PARTICIPANTS. EMCORE seeks to identify and develop long-term relationships with leading companies in targeted industries. EMCORE develops these relationships in a number of ways that include long-term high-volume supply agreements, joint ventures, an acquisition, and distribution and other arrangements. For example, EMCORE entered into a joint venture with General Electric Lighting for the development and marketing of white light and colored HB LED products for automotive, traffic, flat panel display and other lighting applications. EMCORE has also entered into a long-term supply agreement with AMP Incorporated for VCSELs to be used in its transceivers for Gigabit Ethernet and other applications. EMCORE intends to actively seek similar strategic relationships with other key customers and industry participants in order to further expand its technological and production base.

CONTINUE INVESTMENT TO MAINTAIN TECHNOLOGY LEADERSHIP. Through substantial investment in research and development, EMCORE seeks to expand its leadership position in compound semiconductor production systems, wafers and devices. EMCORE works with its customers to identify specific performance criteria and uses this information to enhance the performance of its production systems and to further expand its process and materials science expertise, including the development of new low cost, high-volume wafers and devices for its customers. In addition, EMCORE's development efforts are focused on continually lowering the production costs of its solutions.

## PRODUCTS

### PRODUCTION SYSTEMS

EMCORE is a leading supplier of MOCVD compound semiconductor production systems, with more than 250 systems shipped as of September 30, 1999. EMCORE believes that its TurboDisc(TM) systems offer significant ownership advantages over competing systems and that the high throughput capabilities of its TurboDisc(TM) systems make possible superior reproducibility of thickness, composition, electronic properties and layer accuracy required for electronic and optoelectronic devices. Each system can be customized for the customer's throughput, wafer size and process chemistry requirements. EMCORE's production systems also achieve a high degree of reliability with an average time available for production, based on customer data, of approximately 95%.

EMCORE believes its TurboDisc(TM) systems enable the lowest cost of ownership for the manufacture of compound semiconductor materials. The major components of the cost of ownership include yield, throughput, direct costs and capital costs. Yield primarily relates to material uniformity, which is a function of the precision of the physical and chemical processes by which atomic layers are deposited. Throughput, the volume of wafers produced per unit of time, includes both the time required for a process cycle and the handling time between process steps. Direct costs include consumables used in manufacturing and processing and the clean room space required for the equipment. Capital costs include the cost of acquisition and installation of the process equipment.

EMCORE's proprietary TurboDisc(TM) technology utilizes a unique high speed rotating disk in a stainless steel growth chamber with integrated vacuum-compatible loading chambers. To produce a wafer, a bare substrate, such as gallium arsenide, sapphire or germanium, is placed on a wafer carrier in the TurboDisc(TM) growth chamber and subjected to high temperatures. Based on a predetermined formula, metal organic gases are released into the growth chamber. These gases decompose on the hot, rapidly spinning wafer. Semiconductor materials are then deposited on the substrate in a highly uniform manner. The resulting wafer thus carries one or more ultra-thin layers of compound semiconductor material such as gallium arsenide, gallium nitride, or indium aluminum phosphide. The TurboDisc(TM) technology not only produces uniformity of deposition across the wafer, but also offers flexibility for diverse applications with improved material results and increased production rates. The unique precision control of reactant gas flow in the TurboDisc(TM) technology platform allows users to scale easily from research to commercial volumes with substantially reduced time and effort. Upon removal from the growth chamber, the wafer is transferred to a device processing facility for various steps such as photolithography, etching, masking, metallization and dicing. Upon completion of these steps, the devices are then sent for packaging by the customer or other third parties and inclusion in the customer's product.

EMCORE offers the following family of TurboDisc(TM) systems:

MODEL -----	LIST PRICE -----	APPLICATION -----
Discovery	\$ 600,000 - \$1,300,000	Development/Pilot Production
Enterprise	\$1,300,000 - \$2,500,000	Volume Production

EMCORE's next generation of TurboDisc(TM) products is being designed to provide a number of innovations including:

- o new reactor design to improve efficiency;
- o cassette-to-cassette wafer handling to increase automation;
- o digital control system to reduce noise;
- o real-time process control and data acquisition on WindowsNT platform;
- o modular component design to ease outsourcing and upgrading; and
- o improved temperature control.

## WAFERS AND DEVICES

Since its inception, EMCORE has worked closely with its customers to design and develop materials processes for use in production systems for its customers' end-use applications. EMCORE has leveraged its process and materials science knowledge base to manufacture a broad range of compound semiconductor wafers and devices such as solar cells, HB LEDs, VCSELs, MR sensors and RF materials.

Within most of these product lines, EMCORE has established strategic relationships through joint ventures, long-term supply agreements and an acquisition. A summary of these relationships is found below:

PRODUCTS AND STRATEGIC RELATIONSHIPS			
PRODUCT LINE	COMPANY	NATURE OF RELATIONSHIP	APPLICATION
Solar cells	Space Systems / Loral	Long-term supply agreement	Solar panels in communications satellite powered systems
	Lockheed Martin Missiles and Space	Strategic Partner	
	Union Miniere Inc.	Long-term germanium sourcing agreement	
HB LEDs	General Electric Lighting	GELcore joint venture for the development, marketing and distribution of white light and colored HB LED products	Traffic lights Miniature lamps Automotive lighting Flat panel displays
	Uniroyal Technology Corporation	Uniroyal Optoelectronics joint venture for the manufacture of HB LED wafers and package-ready devices	Other lighting applications
VCSELs	AMP Incorporated	Strategic alliance and long-term supply agreement	Optical links (including Gigabit Ethernet, ATM, and FibreChannel networks)
	MicroOptical Devices, Inc.	Acquisition	
MR sensors	Optek Technology, Inc.	Emtech joint venture for packaging and marketing of MR sensors	Antilock brake systems Brushless motors Engine timing sensors Cam and crank shaft sensors
	General Motors Corporation	Long-term supply agreement	
Germanium research and development	Union Miniere Inc.	UMCore joint venture	Exploring alternative uses for germanium substrates
RF materials	Sumitomo Electric Industries, Ltd.	Cooperative development agreement	Digital wireless and cellular applications
		Long-term supply agreement	



## SOLAR CELLS.

Compound semiconductor solar cells are used to power satellites because they are more resistant to radiation levels in space, convert substantially more light to power and therefore weigh less per unit of power than silicon-based solar cells. These characteristics increase satellite life, increase payload capacity and reduce launch costs. EMCORE is currently involved in five solar cell projects:

- o In November 1999, EMCORE entered into a Technical Assistance Agreement with Loral and Mitsubishi Electric Corporation.
- o In November 1998, EMCORE signed a four-year purchase agreement with Space Systems/Loral, a wholly owned subsidiary of Loral Space & Communications. Under this agreement, EMCORE will supply compound semiconductor high efficiency gallium arsenide solar cells for Loral's satellites. EMCORE received purchase orders from Space Systems/Loral that total \$7.2 million and will service this agreement through our newly completed facility in Albuquerque, New Mexico. EMCORE plans to start shipping solar cells as early as December 1999 and a majority of the solar cell shipments are scheduled for the second fiscal quarter, which ends March 31, 2000.
- o In November 1998, EMCORE received a \$2.2 million contract under the U.S. Air Force's Broad Agency Announcement Program for the development of high-efficiency advanced solar cells.
- o In September 1998, EMCORE entered into an agreement with Lockheed Martin Missiles and Space, a strategic business unit of Lockheed Martin Corporation, to provide technical management and support of a Cooperative Research and Development Agreement between Lockheed Martin and Sandia National Laboratory for the advancement and commercialization of a new compound semiconductor high efficiency solar cell. Pursuant to this strategic agreement, (1) Lockheed Martin will grant EMCORE a sub-license for all related intellectual property developed on behalf of or in conjunction with Lockheed Martin, and (2) EMCORE and Lockheed Martin will jointly qualify and validate the high efficiency solar cells for operational satellite use.
- o In August 1998, EMCORE and Union Miniere Inc., a mining and materials company, entered into a long-term supply agreement for germanium, which EMCORE uses to fabricate solar cells. In addition to their solar cell relationship, in November 1998, EMCORE formed UMCORE, a joint venture with Union Miniere to explore and develop alternate uses for germanium using EMCORE's material science and production platform expertise and Union Miniere's access to and experience with germanium. UMCORE commenced research and development operations in January 1999.

## HB LEDs.

High-brightness light-emitting diodes ("HB LEDs") are solid state compound semiconductor devices that emit light. The global demand for HB LEDs is experiencing rapid growth because LEDs have a long useful life of approximately 10 years, consume approximately 10% of the power consumed by incandescent or halogen lighting and improve display visibility. In February 1998, EMCORE and Uniroyal Technology Corporation formed Uniroyal Optoelectronics, a joint venture to manufacture, sell and distribute HB LED wafers and package-ready devices.

In May 1999, EMCORE and General Electric Lighting formed GELcore, a joint venture to develop and market HB LED lighting products. General Electric Lighting and EMCORE have agreed that this joint venture will be the exclusive vehicle for each party's participation in solid state lighting. GELcore seeks to combine EMCORE's materials science expertise, process technology and compound semiconductor production systems with General Electric Lighting's brand name recognition and extensive marketing and distribution capabilities. GELcore's long-term goal is to develop products to replace traditional lighting.

## VCSELS.

Vertical cavity surface-emitting lasers ("VCSELS") are semiconductor lasers that emit light in a cylindrical beam. Leading electronic systems manufacturers are integrating VCSELS into a broad array of end-market applications including Internet access, digital cross-connect telecommunications switches, DVD, and fiber optic switching and routing, such as Gigabit Ethernet. VCSELS offer significant advantages over traditional laser diodes, including:

- o greater control over beam size and wavelength;
- o reduced manufacturing complexity and packaging costs;
- o lower power consumption; and
- o higher frequency performance.

In December 1997, EMCORE acquired MicroOptical Devices, Inc. ("MODE"), a development stage company, primarily dedicated to the research and development of enabling VCSEL technologies. In February 1998, EMCORE announced Gigalase, its first commercial high speed VCSEL laser. In September 1998, EMCORE signed a four-year purchase agreement with AMP Inc. to provide VCSELS for a family of optical transceivers for the Gigabit Ethernet, FibreChannel and ATM markets. In December 1998, EMCORE announced its second VCSEL product, Gigarray, a VCSEL array.

## MR SENSORS.

Magneto resistive ("MR") sensors are compound semiconductor devices that possess sensing capabilities. MR sensors improve vehicle performance through more accurate control of engine and crank shaft timing, which allows for improved spark plug efficiency and reduced emissions. In January 1997, EMCORE initiated shipments of compound semiconductor MR sensors using technology licensed to EMCORE from General Motors. This license allows EMCORE to manufacture and sell products using this technology to anyone. As of September 30, 1999 EMCORE has delivered over eight million devices to General Motors Powertrain for crank and cam speed and position sensing applications for 5 different engine builds under 20 different vehicle platforms.

In October 1998, EMCORE formed Emtech, a joint venture with Optek Technology, Inc., a packager and distributor of optoelectronic devices, to market an expanded line of MR sensors to the automotive and related industries. This joint venture seeks to combine EMCORE's strength in producing devices with Optek's strength in packaging and distributing devices to offer off-the-shelf products and expand market penetration. As of September 30, 1999, the joint venture had not commenced operations.

## RF MATERIALS.

Radio frequency ("RF") materials are compound semiconductor materials that transmit and receive communications. Compound semiconductor RF materials have a broader bandwidth and superior performance at high frequencies than silicon-based materials. EMCORE currently produces RF materials for use as power amplifiers in cellular phone handsets. In addition, EMCORE is exploring opportunities to market these materials for additional uses in fiber optics and satellite communications. EMCORE believes that its ability to produce high volumes of RF materials at a low cost will facilitate their adoption in new applications and new products.

In May 1999, EMCORE signed a long-term agreement with Sumitomo Electric Industries, Ltd. (Hyogo, Japan) to jointly develop and produce Indium Gallium Phosphide (InGaP) epitaxial wafers for use as Heterojunction Bipolar Transistor (HBT) devices used in digital wireless and cellular applications. Sumitomo Electric is one of the world's leading electronics manufacturers. These advanced compound semiconductor HBT wafers will be produced at EMCORE's Epitaxial Materials (E2M) wafer foundry in Somerset, New Jersey, and shipments of commercial product are expected to begin in February 2000.

EMCORE's customers include many of the largest semiconductor, telecommunications, consumer goods and computer manufacturing companies in the world. A number of EMCORE's customers are listed below. In addition, EMCORE has sold its products to 12 of the largest electronics manufacturers in Japan.

AMP Incorporated	LG Semiconductor	Rockwell International
The Boeing Company	L.M. Ericsson AB	Samsung
General Motors	Lucent Technologies	Sharp U.S.A.
Hewlett Packard	Motorola	Siemens AG - Osram
Honeywell	Northrop Grumman	Texas Instruments
Hughes-Spectrolab	Philips AG	Thomson CSF
Hyundai Electronics	Polaroid	Westinghouse Electric
IBM		

EMCORE has a comprehensive total quality management program with special emphasis on total customer satisfaction. EMCORE seeks to encourage active customer involvement with the design and operation of its production systems. To accomplish this, EMCORE conducts user group meetings among its customers in Asia, Europe and North America. At annual meetings, EMCORE's customers provide valuable feedback on key operations, process oriented services, problems and recommendations to improve EMCORE products. This direct customer feedback has enabled EMCORE to constantly update and improve the design of its systems and processes. Changes that affect the reliability and capabilities of EMCORE's systems are embodied in new designs to enable current and future customers to utilize systems which EMCORE believes are high quality and cost-efficient. As of September 30, 1999, EMCORE employed 18 field service engineers who install EMCORE systems and provide on-site support.

#### MARKETING AND SALES

EMCORE markets and sells its wafers, devices and systems through its direct sales force in Europe, North America and Taiwan and through representatives and distributors elsewhere in Asia. To market and service its products in China, Japan and Singapore, EMCORE relies on a single marketing, distribution and service provider, Hakuto Co., Ltd. EMCORE's agreements with Hakuto have a term of 10 years, expiring March 2008. Hakuto has exclusive distribution rights for certain EMCORE products in Japan. Hakuto has marketed and serviced EMCORE's products since 1988, is a minority shareholder in EMCORE, and the President of Hakuto is a member of EMCORE's Board of Directors. EMCORE recently opened sales offices in Taiwan and California in order to be closer to its customers. As of September 30, 1999, EMCORE employed 27 persons in sales and marketing.

EMCORE's sales and marketing, senior management and technical staff work closely with existing and potential customers to provide compound semiconductor solutions for its customers' needs. The sales process begins by understanding the customer's requirements and then attempting to match these requirements with the optimal solution. EMCORE seeks to match the customer's requirements to an existing design or a modification of a standard design, such as a change in platform or process design. When necessary, EMCORE will work with the customer to develop the appropriate design process and to configure and manufacture the production system to meet the customer's needs. Also, EMCORE will produce samples to demonstrate conformance to the customer's specifications. For production systems, the amount of time from the initial contact with the customer to the customer's placement of an order is typically two to nine months or longer. EMCORE's sales cycle for wafers and devices usually runs three to nine months, during which time EMCORE develops the formula of materials necessary to meet the customer's specifications and qualifies the materials, which may also require the delivery of samples. EMCORE believes that the high level of marketing, management and engineering support involved in this process is beneficial in developing competitive differentiation and long-term relationships with its customers.

EMCORE maintains a worldwide service and support network responsible for on-site maintenance and process monitoring on either a contractual or time-and-materials basis. Customers may purchase annual service contracts under which EMCORE is required to maintain an inventory of replacement parts and to service the equipment upon the request of the customer. EMCORE also sells replacement parts from inventory for customer needs. EMCORE pursues a program of system upgrades for customers to increase the performance of older systems. EMCORE generally does not offer extended payment terms to its customers and generally adheres to a warranty policy of one year. Consistent with industry practice, EMCORE maintains an inventory of components for servicing systems in the field and it believes that its inventory is sufficient to satisfy foreseeable short-term customer requirements. In fiscal year 1998, EMCORE opened a warehouse depot in Taiwan to provide improved service to its Asian customers.

#### RESEARCH AND DEVELOPMENT

To maintain and improve its competitive position, EMCORE's research and development efforts are focused on designing new proprietary processes and products, improving the performance of existing systems, wafers and devices and reducing costs in the product manufacturing process. EMCORE has dedicated 21 TurboDisc(TM) systems for both research and production that are capable of processing virtually all compound semiconductor materials. The research and development staff utilizes x-ray, optical and electrical characterization equipment, which provide instant data allowing for shortened development cycles and rapid customer response. EMCORE's recurring research and development expenses were approximately \$20.7 million in fiscal year 1999, \$16.5 million in fiscal year 1998 and \$9.0 million in fiscal year 1997. EMCORE also incurred a one-time, non-cash acquired in-process research and development expense in fiscal year 1998 in the amount of \$19.5 million in connection with the acquisition of MODE. EMCORE expects that it will continue to expend substantial resources on research and development. As of September 30, 1999, EMCORE employed 77 persons in research and development, 33 of whom held Ph.D.s in materials science or related fields.

EMCORE also competes for research and development funds. In view of the high cost of development, EMCORE solicits research contracts that provide opportunities to enhance its core technology base or promote the commercialization of targeted products. EMCORE presently has ten contracts under the Small Business Innovative Research programs or similar government sponsored programs. From inception until September 30, 1999, government and other external research contracts have provided approximately \$15.3 million to support EMCORE's research and development efforts. EMCORE is also positioned to market technology and process development expertise directly to customers who require it for their own product development efforts.

## INTELLECTUAL PROPERTY AND LICENSING

EMCORE's success and competitive position both for production systems and wafers and devices depend significantly on its ability to maintain trade secrets and other intellectual property protections. Our strategy is to rely more on trade secrets than patents. A "trade secret" is information that has value to the extent it is not generally known, not readily ascertainable by others through legitimate means, and protected in a way that maintains its secrecy. Reliance on trade secrets is only an effective business practice insofar as trade secrets remain undisclosed and a proprietary product or process is not reverse engineered or independently developed. In order to protect its trade secrets, EMCORE takes certain measures to ensure their secrecy, such as executing non-disclosure agreements with its employees, joint venture partners, customers and suppliers.

To date, EMCORE has been issued 11 U.S. patents and others are either pending or under review. These U.S. patents will expire between 2005 and 2013. None of these U.S. patents claim any material aspect of the current or planned commercial versions of EMCORE's systems, wafers or devices. EMCORE relies on trade secrets rather than patents to protect its intellectual property because it believes publishing patents would make it easier for others to reverse engineer EMCORE's proprietary processes. EMCORE is a licensee of certain VCSEL technology and associated patent rights owned by Sandia Corporation. The Sandia license grants EMCORE:

- o exclusive rights (subject to certain rights granted to Department of Energy and AT&T Corporation) to develop, manufacture and sell products containing Sandia VCSEL technologies for barcode scanning and plastic optical fiber communications applications under five U.S. patents that expire between 2007 and 2015;
- o nonexclusive rights with respect to all other applications of these patents; and
- o nonexclusive rights to employ a proprietary oxidation fabrication method in the manufacture of VCSEL products under a sixth U.S. patent that expires in 2014. Our exclusivity with respect to the barcode scanning and plastic optical fiber communications applications expires in 2003 or such earlier time as we fail to meet certain development and marketing criteria. EMCORE's success and competitive position as a producer of VCSEL products depends on the continuation of its rights under the Sandia license, the scope and duration of those rights and the ability of Sandia to protect its proprietary interests in the underlying technology and patents.

In 1992, we received a royalty bearing, non-exclusive license under a patent held by Rockwell International Corporation which relates to an aspect of the manufacturing process used by our TurboDisc(TM) systems. In October 1996, we initiated discussions with Rockwell to receive additional licenses to permit us to use this technology to manufacture and sell compound semiconductor wafers and devices. In November 1996, we suspended these negotiations because of litigation surrounding the validity of the Rockwell patent. We also ceased making royalty payments to Rockwell under the license during the pendency of the litigation. In January 1999, the case was settled and a judgment was entered in favor of Rockwell. As a result, we may be required to pay royalties to Rockwell for certain of our past sales of wafers and devices to our customers who did not hold licenses directly from Rockwell. Management has reviewed and reassessed the royalty agreements and concluded that it has the appropriate amounts reserved for at both September 30, 1998 and 1999.

Additionally, until the patent expires in January 2000, we may require additional licenses from Rockwell under the Rockwell patent in order to continue to manufacture and sell wafers and devices. We are currently negotiating with Rockwell to obtain the necessary licenses. The failure to obtain or maintain licenses to manufacture these wafers and devices on commercially reasonable terms may materially and adversely affect our business, financial condition and results of operations.

## ENVIRONMENTAL REGULATIONS

EMCORE is subject to federal, state and local laws and regulations concerning the use, storage, handling, generation, treatment, emission, release, discharge and disposal of certain materials used in its research and development and production operations, as well as laws and regulations concerning environmental remediation and employee health and safety. The production of wafers and devices involves the use of certain hazardous raw materials, including, but not limited to, ammonia, phosphine and arsene. If EMCORE's control systems are unsuccessful in preventing release of these or other hazardous materials, EMCORE could experience a substantial interruption of

operations. EMCORE has retained an environmental consultant to advise it in complying with applicable environmental and health and safety laws and regulations, and believes that it is currently, and in the past has been, in substantial compliance with all such laws and regulations.

#### BACKLOG

As of September 30, 1999, EMCORE had an order backlog of \$43.1 million, scheduled to be shipped through September 30, 2000. This represented an increase of 67% since September 30, 1998. This increase primarily relates to increased production systems bookings in Asia and initial orders for solar cells from Loral. EMCORE includes in backlog only customer purchase orders that have been accepted by EMCORE and for which shipment dates have been assigned within the 12 months to follow and research contracts that are in process or awarded. Wafer and device agreements extending longer than one year in duration are included in backlog only for the ensuing 12 months. EMCORE receives partial advance payments or irrevocable letters of credit on most production system orders. EMCORE recognizes revenue from the sale of its systems and materials upon shipment. For research contracts with the U.S. government and commercial enterprises with durations greater than six months, EMCORE recognizes revenue to the extent of costs incurred plus a portion of estimated gross profit, as stipulated in such contracts, based on contract performance.

#### MANUFACTURING

EMCORE's manufacturing operations are located at EMCORE's headquarters in Somerset, New Jersey and in Albuquerque, New Mexico and include systems engineering and production, wafer fabrication, and design and production of devices. Many of EMCORE's manufacturing operations are computer monitored or controlled to enhance reliability and yield. EMCORE manufactures its own systems and outsources some components and sub-assemblies, but performs all final system integration, assembly and testing. As of September 30, 1999, EMCORE had 267 employees involved in manufacturing. EMCORE fabricates wafers and devices at its facilities in Somerset, New Jersey and Albuquerque, New Mexico and has a combined clean room area totaling approximately 12,000 square feet. EMCORE's joint venture with Uniroyal Technology Corporation has begun to manufacture HB LED wafers and package-ready devices at its Tampa, Florida manufacturing facility. In May 1998, EMCORE received ISO 9001 and QS 9002 quality certification for its Somerset, New Jersey facility. In November 1999, EMCORE received ISO 9001 quality certification for its newly completed solar cell facility in Albuquerque, New Mexico. EMCORE is pursuing ISO 9001 quality certification for its VCSEL facility in Albuquerque, New Mexico.

Outside contractors and suppliers are used to supply raw materials and standard components and to assemble portions of end systems from EMCORE specifications. EMCORE depends on sole, or a limited number of, suppliers of components and raw materials. EMCORE generally purchases these single or limited source products through standard purchase orders. EMCORE also seeks to maintain ongoing communications with its suppliers to guard against interruptions in supply and has, to date, generally been able to obtain sufficient supplies in a timely manner and maintains inventories it believes are sufficient to meet its near term needs. EMCORE implemented a vendor program through which it inspects quality and reviews suppliers and prices in order to standardize purchasing efficiencies and design requirements to maintain as low a cost of sales as possible. However, operating results could be materially and adversely affected by a stoppage or delay of supply, receipt of defective parts or contaminated materials, and increase in the pricing of such parts or EMCORE's inability to obtain reduced pricing from its suppliers in response to competitive pressures.

#### COMPETITION

The markets in which EMCORE competes are highly competitive. EMCORE competes with several companies for sales of MOCVD systems including Aixtron GmbH and Nippon-Sanso K.K. The primary competitors for EMCORE's wafer foundry include Epitaxial Products Inc., Kopin Corporation and Quantum Epitaxial Designs, Inc. EMCORE's principal competitors for sales of VCSEL-related products include Honeywell, Inc. and Mitel Corporation. The principal competitors for MR sensors are Honeywell, Inc., Matsushita Electric Industrial Co. Ltd., Siemens AG and Asahi. The principal competitors for HB LEDs and EMCORE's joint ventures with Uniroyal Technology Corporation and General Electric Lighting include the Phillips Electronics and Hewlett Packard Company joint venture, Siemens AG's Osram GmbH subsidiary, Nichia Chemical Industries and Toshiba Corporation. EMCORE also faces competition from manufacturers that implement in-house systems

for their own use. In addition, EMCORE competes with many research institutions and universities for research contract funding. EMCORE also sells its products to current competitors and companies with the capability of becoming competitors. As the markets for EMCORE's products grow, new competitors are likely to emerge, and present competitors may increase their market share.

EMCORE believes that the primary competitive factors in the markets in which EMCORE's products compete are yield, throughput, performance, breadth of product line, customer satisfaction, customer commitment to competing technologies and, in the case of production systems, capital and directs costs and size of installed base. Competitors may develop enhancements to or future generations of competitive products that offer superior price and performance factors. EMCORE believes that in order to remain competitive, it must invest significant financial resources in developing new product features and enhancements and in maintaining customer satisfaction worldwide.

#### EMPLOYEES

At September 30, 1999, EMCORE had 368 full-time employees. None of EMCORE's employees are covered by a collective bargaining agreement. EMCORE considers its relationship with its employees to be good.

#### ITEM 2. PROPERTIES

The following chart contains certain information regarding each of EMCORE's principal facilities. Each of these facilities contains office space, marketing and sales, and research and development space. EMCORE also leases office space in Hsinchu, Taiwan and Santa Clara, California. In addition to EMCORE's facilities, Uniroyal Optoelectronics, a joint venture between EMCORE and Uniroyal Technology Corporation, leases a 75,000 square foot office and manufacturing facility in Tampa, Florida.

LOCATION -----	FUNCTION -----	SQUARE FEET -----	TERMS -----
Somerset, New Jersey	- Headquarters - Manufacturing of systems, wafers and MR sensors	75,900	Lease Expires in 2005(1)
Albuquerque, New Mexico	Manufacturing of solar cells	50,000(2)	Owned
Albuquerque, New Mexico	Manufacturing of VCSELs	27,500	Leases Expire in 2001(1) and 2002(1)

(1) These leases all have options to renew by EMCORE, subject to cost of living adjustments.

(2) EMCORE plans a three-phase construction project to expand the facility from an initial 50,000 square feet in October 1998 to 70,000 square feet by 2002.

#### ITEM 3. LEGAL PROCEEDINGS

EMCORE is not aware of any pending or threatened litigation against it that could have a material adverse effect on its business, financial condition and results of operations.

#### ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

Not applicable.

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED SHAREHOLDER MATTERS

EMCORE's common stock is quoted on the NASDAQ National Market under the symbol "EMKR". The following table sets forth the quarterly high and low sale prices for EMCORE's common stock during the two most recent fiscal years and subsequent interim period.

	HIGH	LOW
	----	---
FISCAL YEAR ENDED SEPTEMBER 30, 1998:		
First Quarter.....	\$23 3/8	\$15 1/2
Second Quarter.....	\$19 5/8	\$11
Third Quarter .....	\$16 3/4	\$ 9
Fourth Quarter .....	\$13 1/2	\$ 6
FISCAL YEAR ENDED SEPTEMBER 30, 1999:		
First Quarter.....	\$18 3/8	\$ 7 1/4
Second Quarter.....	\$28 3/4	\$13 7/8
Third Quarter .....	\$23	\$12 7/8
Fourth Quarter .....	\$25	\$11 1/4
FISCAL YEAR ENDED SEPTEMBER 30, 2000:		
First Quarter (through December 1, 1999).....	\$24 1/4	\$12 1/16

The reported closing sale price of EMCORE's common stock on December 1, 1999 was \$23 15/16 per share. As of December 1, 1999, EMCORE had approximately 1,838 shareholders of record.

EMCORE has never declared or paid dividends on its common stock since its formation. EMCORE currently does not intend to pay dividends on its common stock in the foreseeable future so that it may reinvest its earnings in its business. The payment of dividends, if any, in the future will be at the discretion of the Board of Directors.

The shares of EMCORE's manditorily redeemable convertible preferred stock are entitled to receive cumulative quarterly dividends at the annual rate of 2% of their liquidation preference (\$0.28 per annum per share).



## RECENT SALES OF UNREGISTERED SECURITIES

On November 30, 1998, EMCORE sold an aggregate of 1,550,000 shares of Series I mandatorily redeemable convertible Preferred Stock (the "Series I Preferred Stock") to related parties (Hakuto Company, Uniroyal Technology Corporation and Union Miniere, Inc.) for an aggregate consideration of \$21.7 million before deducting costs and expenses of the offering which amounted to approximately \$500,000. The shares of Series I Preferred Stock are convertible, at any time, at the option of the holders thereof, unless previously redeemed, into shares of common stock at an initial conversion price of \$14.00 per share of common stock, subject to adjustment in certain cases. The Series I Preferred Stock is redeemable, in whole or in part, at the option of EMCORE at any time the common stock has traded at or above \$28.00 per share for 30 consecutive trading days, at a price of \$14.00 per share, plus accrued and unpaid dividends, if any, to the redemption date. In addition, the Series I Preferred Stock is subject to mandatory redemption by November 17, 2003. EMCORE believes the sale of the shares of Series I Preferred Stock is exempt from registration pursuant to Section 4(2) of the Securities Act of 1933, as amended (the "Securities Act").

On May 27, 1999, EMCORE issued 282,010 warrants to General Electric to purchase common stock at \$22.875 per share. These warrants are exercisable at any time and will expire in 2006. These warrants were granted in connection with EMCORE's initial capital contribution of \$7.8 million into GELcore. In order to fund its initial capital contribution for GELcore, EMCORE borrowed \$7.8 million from General Electric in the form of a convertible subordinated debenture (the "Debenture"), with an interest rate of 4.75% and a May 2006 maturity date. The Debenture is convertible into EMCORE common stock at a conversion price of \$22.875 or 340,984 shares. The Debenture is convertible at any time at the option of General Electric and may be called by EMCORE after three years, if the price of EMCORE's common stock has traded at or above \$34 for at least thirty days. EMCORE believes the issuance of the warrants was exempt from registration pursuant to Section 4(2) of the Securities Act.

## ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data for the five most recent fiscal years ended September 30, 1999 of EMCORE is qualified by reference to and should be read in conjunction with the Financial Statements and the Notes thereto, and Management's Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this document. The Statement of Operations Data set forth below with respect to fiscal years 1997, 1998 and 1999 and the Balance Sheet Data as of September 30, 1998 and 1999 are derived from EMCORE's audited financial statements included elsewhere in this document. The Statement of Income Data for fiscal years 1995 and 1996 and the Balance Sheet Data as of September 30, 1995, 1996 and 1997 are derived from audited financial statements not included herein.

On December 5, 1997, EMCORE acquired MODE in a stock transaction accounted for under the purchase method of accounting for a purchase price of \$32.8 million. In connection with this transaction, EMCORE recorded a non-recurring, non-cash charge of \$19.5 million for acquired in-process research and development, which affects the comparability of EMCORE's operating results and financial condition.

(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

For the fiscal years ended September 30,

	1995	1996	1997	1998	1999
STATEMENTS OF OPERATIONS DATA:					
Revenue.....	\$18,137	\$27,779	\$47,752	\$43,760	\$58,341
Cost of sales.....	9,927	18,607	30,094	24,676	33,158
Gross profit.....	8,210	9,172	17,658	19,084	25,183
Operating expenses:					
Selling, general and administrative.....	4,452	6,524	9,346	14,082	14,433
Goodwill amortization.....	--	--	--	3,638	4,393
Research and development:					
Recurring.....	1,852	5,401	9,001	16,495	20,713
One-time acquired in-process.....	--	--	--	19,516	--
Total operating expenses.....	6,304	11,925	18,347	53,731	39,539
Operating income (loss).....	1,906	(2,753)	(689)	(34,647)	(14,356)
Stated interest expense, net.....	265	297	520	973	866
Imputed warrant interest expense.....	--	126	3,988	601	1,136
Equity in net loss of unconsolidated affiliates.....	--	--	--	198	4,997
Total other expenses.....	265	423	4,508	1,772	6,999
Income (loss) before income taxes and extraordinary item.....	1,641	(3,176)	(5,197)	(36,419)	(21,355)
Provision for income taxes.....	125	--	137	--	--
Income (loss) before extraordinary item.....	1,516	(3,176)	(5,334)	(36,419)	(21,355)
Extraordinary item.....	--	--	285	--	1,334
Net income (loss).....	\$ 1,516	\$(3,176)	\$(5,619)	\$(36,419)	\$(22,689)
PER SHARE DATA:					
Weighted average shares used in calculating per share data.....	1,701	2,994	4,669	8,775	10,590
Income (loss) per basic and diluted shares before extraordinary item.....	\$ 0.89	\$ (1.06)	\$ (1.14)	\$ (4.15)	\$ (2.05)
Net income (loss) per basic and diluted shares.....	\$ 0.89	\$ (1.06)	\$ (1.20)	\$ (4.15)	\$ (2.18)

(IN THOUSANDS)

As of September 30,

	1995	1996	1997	1998	1999
BALANCE SHEET DATA:					
Working capital (deficiency).....	\$ 2,208	\$ 1,151	\$12,156	\$ (2,017)	\$ 20,690
Total assets.....	10,143	20,434	39,463	73,220	99,611
Long-term liabilities.....	3,000	8,947	7,577	26,514	9,038
Redeemable convertible preferred stock.....	--	--	--	--	14,193
Shareholders' equity.....	1,509	522	21,831	19,580	61,623

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### OVERVIEW

EMCORE designs, develops and manufactures compound semiconductor materials and is a leading developer and manufacturer of the tools and manufacturing processes used to fabricate compound semiconductor wafers and devices. EMCORE's vertically-integrated product offering allows it to provide a complete compound semiconductor solution to its customers. EMCORE assists its customers with device design, process development and optimal configuration of TurboDisc(TM) production systems.

EMCORE recognizes revenue upon shipment. Systems-related revenues include sales of EMCORE's TurboDisc(TM) production systems as well as spare parts and services. The book-to-ship time period on systems is approximately four to six months, and the average selling price is in excess of \$1.0 million. For systems, EMCORE incurs certain installation and warranty costs subsequent to shipment which are estimated and accrued at the time the sale is recognized. EMCORE reserves for estimated returns and allowances at the time of shipment. Materials revenues include wafers, devices and process development technology. The materials sales cycle is generally shorter than for systems and average selling prices vary significantly based on the products and services provided. Generally, EMCORE achieves a higher gross profit on its materials related products.

EMCORE has recently established a number of strategic relationships through joint ventures, long-term supply agreements and an acquisition as summarized below:

- o In May 1999, EMCORE and General Electric Lighting formed GELcore, a joint venture to develop and market HB LED lighting products. General Electric Lighting and EMCORE have agreed that this joint venture will be the exclusive vehicle for each party's participation in solid state lighting. GELcore seeks to combine EMCORE's materials science expertise, process technology and compound semiconductor production systems with General Electric Lighting's brand name recognition and extensive marketing and distribution capabilities. GELcore's long-term goal is to develop products to replace traditional lighting. EMCORE has invested \$7.8 million in GELcore and has seconded various employees to the joint venture to assist in the development of products.
- o In May 1999, EMCORE signed a long-term agreement with Sumitomo Electric Industries, Ltd. (Hyogo, Japan) to jointly develop and produce Indium Gallium Phosphide (InGaP) epitaxial wafers for use as Heterojunction Bipolar Transistor (HBT) devices used in digital wireless and cellular applications. Sumitomo Electric is one of the world's leading electronics manufacturers. These advanced compound semiconductor HBT wafers will be produced at EMCORE's Epitaxial Materials (E2M) wafer foundry in Somerset, New Jersey, and shipments of commercial product are expected to begin in February 2000.
- o In November 1998, EMCORE signed a long-term supply agreement with Space Systems/Loral, a wholly owned subsidiary of Loral Space & Communications. Under this agreement, EMCORE will supply compound semiconductor high-efficiency gallium arsenide solar cells for Loral's satellites. EMCORE received purchase orders from Space Systems/Loral that total \$7.2 million and expects to service this agreement through our newly completed facility in Albuquerque, New Mexico. EMCORE plans to start shipping solar cells as early as December 1999 and a majority of the solar cell shipments are scheduled for the second fiscal quarter ended March 31, 2000. This facility presently employs approximately 53 people, including sales and marketing, administrative and manufacturing personnel.
- o In November 1998, EMCORE formed UMCORE, a joint venture with Union Miniere Inc., a mining and materials company, to explore and develop alternate uses for germanium using EMCORE's materials science and production platform expertise and Union Miniere's access to and experience with germanium. EMCORE has seconded various personnel to the joint venture to assist in the development of products.

- o In October 1998, EMCORE formed Emtech, a joint venture with Optek Technology, Inc., a packager and distributor of optoelectronic devices, to market an expanded line of magneto resistive sensors to the automotive and related industries. This joint venture combines EMCORE's expertise in the manufacture of magneto resistive die and Optek's expertise in packaging these die. This combination will allow us to offer customers off-the-shelf products. No additional personnel are anticipated to meet the obligations to the joint venture.
- o In September 1998, EMCORE entered into an agreement with Lockheed Martin to provide technical management and support for the commercialization of a new high-efficiency solar cell. It is anticipated that we will provide high efficiency solar cells to Lockheed Martin upon completion of the research and development agreement. EMCORE's new facility in Albuquerque, New Mexico, will provide the support necessary to meet our obligations under this agreement.
- o In September 1998, EMCORE also signed a four-year purchase agreement with AMP Incorporated to provide high speed VCSELs, for use in transceivers for high-speed networks that link computers. The contract requires AMP to purchase a minimum of 80% of their VCSEL needs from EMCORE. EMCORE's MODE facility in Albuquerque, New Mexico, will produce the devices under this contract.
- o In December 1997, the Company and a wholly owned subsidiary of Uniroyal Technology Corporation formed Uniroyal Optoelectronics LLC, a joint venture, to manufacture, sell and distribute High Brightness (HB) LED wafers and package-ready devices. This joint venture commenced operations in July 1998. EMCORE has invested \$6.0 million in Uniroyal Optoelectronics and has seconded various employees to the joint venture to assist in the development of products. Uniroyal Optoelectronics is hiring its own administrative and management personnel. The impact on EMCORE's operations will be limited to a few seconded employees who will continue to be managed by EMCORE personnel.
- o In December 1997, EMCORE acquired MODE in a stock transaction accounted for under the purchase method of accounting for a purchase price of \$32.8 million. This acquisition allowed EMCORE to expand its technology base into the data communications and telecommunications markets. MODE, a development stage company, constituted a significant and strategic investment for EMCORE to acquire and gain access to MODE's in-process research and development of micro-optical technology. As part of this acquisition, EMCORE incurred a one-time in-process research and development write-off of \$19.5 million. EMCORE also recorded goodwill of approximately \$13.2 million, which is being charged against operations over a three-year period, and will therefore impact financial results through December 2000. These operations are located in Albuquerque, New Mexico and currently employ approximately 39 people including sales and marketing, administrative and manufacturing personnel.

Because EMCORE does not have a controlling economic and voting interest in the Uniroyal Technology, Union Miniere, Optek and General Electric Lighting joint ventures, EMCORE accounts for these joint ventures under the equity method of accounting and, as such, our share of profits and losses are included below the operating income line in our statements of operations.

EMCORE has generated a significant portion of its sales to customers outside the United States. In fiscal 1997, 1998 and 1999, international sales constituted 42.0%, 39.1% and 52.5%, respectively, of revenues. In fiscal year 1999, the majority of EMCORE's international sales were made to customers in Asia, particularly in Taiwan. EMCORE's sales revenues from Europe have fluctuated because most of our sales of TurboDisc(TM) systems are to a limited number of customers, who do not purchase production systems regularly. EMCORE anticipates that international sales will continue to account for a significant portion of revenues. Historically, we have received all payments for products and services in U.S. dollars. We do not anticipate that Europe's Euro-currency conversion will have a material effect on our financial condition or results of operations.

The following chart contains a breakdown of EMCORE's worldwide revenues and percentages by geographic region.

(in thousands)		FOR THE FISCAL YEARS ENDED SEPTEMBER 30,					
		1997		1998		1999	
		Revenues	%	Revenues	%	Revenues	%
merica		\$27,690	58%	\$26,648	61%	\$27,698	48%
		14,584	31%	15,527	35%	28,211	48%
		5,478	11%	1,585	4%	2,432	4%
		\$47,752	100%	\$43,760	100%	\$58,341	100%

As of September 30, 1999, EMCORE had an order backlog of \$43.1 million scheduled to be shipped through September 30, 2000. This represented an increase of 67% since September 30, 1998, which primarily relates to increased systems bookings in Asia and initial orders for solar cells from Loral. EMCORE includes in backlog only customer purchase orders that have been accepted by EMCORE and for which shipment dates have been assigned within the 12 months to follow and research contracts that are in process or awarded. Wafer and device agreements extending longer than one year in duration are included in backlog only for the ensuing 12 months. EMCORE receives partial advance payments or irrevocable letters of credit on most production system orders.

#### RESULTS OF OPERATIONS:

The following table sets forth the statement of operations data of EMCORE expressed as a percentage of total revenues for the fiscal years ended September 30, 1997, 1998 and 1999.

FISCAL YEARS ENDED SEPTEMBER 30,		
1997	1998	1999
----	----	----

#### STATEMENT OF OPERATIONS DATA:

Revenue.....	100.0%	100.0%	100.0%
Cost of sales.....	63.0%	56.4%	56.8%
Gross profit.....	37.0%	43.6%	43.2%
Operating expenses:			
Selling, general and administrative.....	19.6%	32.2%	24.7%
Goodwill amortization.....	--	8.3%	7.5%
Research and development:			
Recurring.....	18.8%	37.7%	35.5%
One-time acquired in-process.....	--	44.6%	--
Total operating expenses.....	38.4%	122.8%	67.7%
Operating loss.....	(1.4%)	(79.2%)	(24.5%)
Stated interest expense, net.....	1.1%	2.2%	1.5%
Imputed warrant interest expense.....	8.4%	1.4%	1.9%
Equity in net loss of unconsolidated affiliates.....	--	0.4%	8.6%
Total other expenses.....	9.5%	4.0%	12.0%
Loss before income taxes and extraordinary item.....	(10.9%)	(83.2%)	(36.6%)
Provision for income taxes.....	0.3%	--	--
Loss before extraordinary item.....	(11.2%)	(83.2%)	(36.6%)
Extraordinary item.....	0.6%	--	2.3%
Net loss.....	(11.8%)	(83.2%)	(38.9%)

## COMPARISON OF FISCAL YEARS ENDED SEPTEMBER 30, 1998 AND 1999

REVENUES. EMCORE's revenues increased 33.3% from \$43.8 million for the fiscal year ended September 30, 1998 to \$58.3 million for the fiscal year ended September 30, 1999. The revenue increase was attributable to increased revenues in the systems-related product lines. Revenues from systems-related sales and materials-related sales were \$26.3 million and \$17.4 million, respectively, for the fiscal year ended September 30, 1998 and \$44.5 million and \$13.9 million, respectively, for the fiscal year ended September 30, 1999. As a percentage of revenues, systems- and materials-related revenues accounted for 60.2% and 39.8%, respectively, for the fiscal year ended September 30, 1998 and 76.2% and 23.8%, respectively, for the fiscal year ended September 30, 1999. EMCORE expects the product mix between systems and materials to approach 50% as new products such as solar cells, VCSELS and HBT's are introduced and production of commercial volumes of these materials commences. International sales accounted for 39.1% of revenues for the fiscal year ended September 30, 1998 and 52.5% of revenues for the fiscal year ended September 30, 1999.

COST OF REVENUES/GROSS PROFIT. Cost of sales includes direct material and labor costs, allocated manufacturing and service overhead, and installation and warranty costs. EMCORE's gross profit increased 32.0% from \$19.1 million for the fiscal year ended September 30, 1998, to \$25.2 million for the fiscal year ended September 30, 1999. As a percentage of revenue, gross profit decreased slightly from 43.6% of revenue for the fiscal year ended September 30, 1998 to 43.2% of revenue for the fiscal year ended September 30, 1999. During the first half of fiscal year 1999, EMCORE sold three compound semiconductor production systems for approximately \$5.3 million to a joint venture in which it has a 49% minority interest. EMCORE deferred \$1.3 million of gross profit on such sales. Such deferred gross profit will be recognized ratably over the assigned life of the production systems purchased by the joint venture.

SELLING, GENERAL AND ADMINISTRATIVE. Selling, general and administrative expenses increased by 2.5% from \$14.1 million for the fiscal year ended September 30, 1998 to \$14.4 million for the fiscal year ended September 30, 1999. As a percentage of revenue, selling, general and administrative expenses decreased from 32.2% for the fiscal year ended September 30, 1998 to 24.7% for the fiscal year ended September 30, 1999.

GOODWILL AMORTIZATION. Goodwill of \$13.2 million was recorded in connection with our acquisition of MODE on December 5, 1997. EMCORE recognized approximately \$4.4 million of goodwill amortization for the fiscal year ended September 30, 1999, reflecting a full year of amortization. As of September 30, 1999, EMCORE had approximately \$5.1 million of net goodwill remaining, which will be fully amortized by December 2000.

RESEARCH AND DEVELOPMENT. Recurring research and development expenses increased 25.6% from \$16.5 million in the fiscal year ended September 30, 1998 to \$20.7 million in the fiscal year ended September 30, 1999. As a percentage of revenue, recurring research and development expenses decreased from 37.7% for the fiscal year ended September 30, 1998 to 35.5% for the fiscal year ended September 30, 1999. The increase in research and development spending was primarily attributable to EMCORE's acquisition of MODE, the startup of our new Albuquerque, New Mexico facility and increased staffing and equipment costs necessary to enhance current products and develop new product offerings. Products introduced or under development include HB LEDs, high efficiency solar cells, new generation TurboDisc(TM) production systems, VCSELS, RF materials and other optoelectronic devices. In fiscal year 1998, EMCORE recognized a \$19.5 million one-time charge for acquired in-process research and development relating to the purchase of MODE. To maintain growth and to continue to pursue market leadership in materials science technology, EMCORE expects to continue to invest a significant amount of its resources in research and development.

OPERATING LOSS. EMCORE reported a 58.6% decrease in operating loss from \$34.6 million for the fiscal year ended September 30, 1998, as compared to an operating loss of \$14.4 million for the fiscal year ended September 30, 1999. The change in operating loss was principally due to the \$19.5 million one-time charge for acquired in-process research and development in 1998. In fiscal year 1999, EMCORE deferred \$1.3 million of gross profit on three compound semiconductor production systems sold to a joint venture in which it has a 49% minority interest. In addition, EMCORE's fiscal year 1999 operating loss was impacted by increased research and development spending, the loss generated from the operations of MODE and the startup expenses associated with the opening of EMCORE's new Albuquerque, New Mexico facility.

OTHER EXPENSE. During fiscal 1996, EMCORE issued 2,575,883 detachable warrants along with subordinated notes to certain of its existing shareholders. EMCORE subsequently assigned a value to these detachable warrants issued using the Black-Scholes option-pricing model. EMCORE recorded the subordinated notes at a carrying value that is subject to periodic accretions, using the interest method. In June 1998, EMCORE issued 284,684 warrants to its Chairman and its Chief Executive Officer for providing a guarantee in connection with an 18-month credit facility with First Union National Bank. EMCORE also assigned a value to these warrants using the Black-Scholes option-pricing model. The consequent expense of the subordinated note accretion and warrant value amortization is charged to "Imputed warrant interest, non-cash" and equals approximately \$601,000 and \$950,000 for the fiscal years ended September 30, 1998 and 1999, respectively. The subordinated notes and the 18-month credit facility were repaid using a portion of the proceeds from the public offering, which was completed in June 1999.

In order to fund its initial capital contribution for GELcore, EMCORE borrowed \$7.8 million from General Electric in the form of a convertible subordinated debenture (the "Debenture"), with an interest rate of 4.75% and a May 2006 maturity date. In connection with the funding of EMCORE's initial capital contribution, General Electric received 282,010 warrants to purchase common stock at \$22.875 per share. These warrants are exercisable at any time and will expire in 2006. EMCORE subsequently assigned a value to these warrants using the Black-Scholes option-pricing model. The warrant value of \$2.6 million is included in other assets and is being amortized over seven years. The consequent expense of the warrant amortization is charged to "Imputed warrant interest, non-cash" and equaled approximately \$186,000 for the fiscal year ended September 30, 1999.

For the fiscal year ended September 30, 1999, stated interest expense, net decreased by \$107,000 to \$866,000. On June 15, 1999, EMCORE completed the issuance of an additional 3.0 million common stock shares through a public offering, which resulted in proceeds of \$52.0 million, net of issuance costs. A significant portion of the proceeds was used to repay all outstanding bank loans and subordinated notes.

Because EMCORE does not have a controlling economic and voting interest in the Uniroyal Technology, Union Miniere and General Electric Lighting joint ventures, EMCORE accounts for these joint ventures under the equity method of accounting. For the fiscal year ended September 30, 1998, EMCORE incurred a net loss of \$198,000 related to the Uniroyal joint venture. For the fiscal year ended September 30, 1999, EMCORE incurred a net loss of \$2.2 million related to the Uniroyal joint venture, a \$2.5 million net loss related to the GELcore joint venture and a \$297,000 net loss related to the UMCORE joint venture.

INCOME TAXES. As a result of its losses, EMCORE did not incur any income tax expense in both fiscal years 1998 and 1999. As of September 30, 1999, EMCORE has net operating loss carryforwards for tax purposes of approximately \$24.0 million, which expire in the years 2003 through 2019. EMCORE believes that the consummation of certain equity transactions and a significant change in the ownership during fiscal years 1995, 1998 and 1999 has constituted a change in control under Section 382 of the Internal Revenue Code. Due to the change in control, EMCORE's ability to use its federal net operating loss carryovers and federal research credit carryovers to offset future income and income taxes, respectively, are subject to annual limitations under Internal Revenue Code Sections 382 and 383.

EXTRAORDINARY ITEM. On June 15, 1999, EMCORE repaid its outstanding bank loans using a portion of the proceeds from the public offering. EMCORE also used a portion of the net proceeds to repurchase its outstanding 6.0% subordinated notes due 2001. The early extinguishment of debt resulted in an extraordinary charge of \$1.3 million or \$0.13 per share in fiscal year 1999 that consisted of \$867,000 related to the discount on prepayment of the subordinated notes and \$467,000 related to the write-off of related deferred financing costs.

NET LOSS. EMCORE reported a 37.7% decrease in net loss from \$36.4 million for the fiscal year ended September 30, 1998, as compared to a net loss of \$22.7 million for the fiscal year ended September 30, 1999. The decrease in the year-to-date loss was attributable to the \$19.5 million write-off of acquired in-process research and development in connection with the acquisition of MODE on December 5, 1997 offset in part by an increase in recurring research and development expenses and the net loss from unconsolidated affiliates.

## COMPARISON OF FISCAL YEARS ENDED SEPTEMBER 30, 1997 AND 1998

REVENUES. EMCORE's revenues decreased 8.4% from \$47.8 million for the fiscal year ended September 30, 1997 to \$43.8 million for the fiscal year ended September 30, 1998. The revenue decrease represented a shift in product mix during the year. Systems-related revenues decreased approximately 22.8% while materials-related revenues increased approximately 27.6%. The decrease in systems-related revenues was primarily attributable to the financial issues in the Asian economies as well as a general slowdown in the semiconductor equipment market overall. While materials-related revenues did experience a 27.6% increase, the General Motors three-month strike adversely affected revenue, as shipments to General Motors were halted during the strike. Systems-related revenues were \$34.1 million for the fiscal year ended September 30, 1997 and \$26.3 million for the fiscal year ended September 30, 1998. Materials-related revenues were \$13.7 million for the fiscal year ended September 30, 1997 and \$17.4 million for the fiscal year ended September 30, 1998. As a percentage of revenues, systems-related revenues accounted for 71.4% for the fiscal year ended September 30, 1997 and 60.2% for the fiscal year ended September 30, 1998. As a percentage of revenues, materials-related revenues accounted for 28.6% for the fiscal year ended September 30, 1997 and 39.8% for the fiscal year ended September 30, 1998. International sales accounted for approximately 42.0% and 39.1% of revenues for the fiscal years ended September 30, 1997 and 1998, respectively.

COST OF REVENUES/GROSS PROFIT. Cost of sales includes direct material and labor costs, allocated manufacturing and service overhead, and installation and warranty costs. Gross profit increased from 37.0% of revenue to 43.6% of revenue for the fiscal years ended September 30, 1997 and 1998, respectively. The gross profit percentage increase was attributable to a shift in product mix towards higher gross margin materials-related revenues.

SELLING, GENERAL AND ADMINISTRATIVE. Selling, general and administrative expenses increased by 50.7% from \$9.3 million for the year ended September 30, 1997, to \$14.1 million for the year ended September 30, 1998. The increase was largely due to sales personnel headcount increases to support both domestic and foreign markets and general headcount additions to sustain the internal administrative support necessary for EMCORE's expanded product lines and new locations. During fiscal 1998, EMCORE wrote-off a \$1.0 million receivable due from an Asian customer which was deemed to be uncollectible. As a percentage of revenue, selling, general and administrative expenses increased from 19.6% of revenue during fiscal 1997 to 32.2% of revenue for fiscal 1998.

GOODWILL AMORTIZATION. In connection with the purchase of MODE, EMCORE recorded goodwill of \$13.2 million that is being amortized over 36 months. Goodwill amortization expense amounted to \$3.6 million for the year ended September 30, 1998. Net goodwill at September 30, 1998 was \$9.5 million.

RESEARCH AND DEVELOPMENT. Recurring research and development expenses increased by 83.3% from \$9.0 million for the year ended September 30, 1997, to \$16.5 million for the year ended September 30, 1998. The increase was primarily attributable to EMCORE's acquisition of MODE and increased staffing and equipment costs necessary to enhance current products and develop new product offerings. Products introduced or under development include HB LEDs, high efficiency solar cells, new generation TurboDisc(TM) production systems, VCSELs and other optoelectronic devices. For the year ended September 30, 1998, EMCORE incurred \$1.1 million of research and development costs associated with MODE's in-process (at the date of acquisition) research and development projects. As a percentage of revenue, research and development expenses increased from 18.8% of revenue during fiscal 1997 to 37.7% of revenue for fiscal 1998. To maintain growth and market leadership in epitaxial technology, EMCORE expects to continue to invest a significant amount of its resources in research and development. In connection with the MODE acquisition, EMCORE incurred a one-time charge for the write-off of acquired in-process research and development amounting to \$19.5 million. The acquisition of MODE, a development stage company, constituted a significant and strategic investment for EMCORE. The principal investment consideration was to acquire and gain access to MODE's micro-optical technology, which was under development at the time. EMCORE plans to use MODE's micro-optical laser technology in new products for data communications and telecommunications applications.



**OPERATING LOSS.** During fiscal 1998, operating loss increased from a loss of \$0.7 million for the fiscal year ended September 30, 1997 to a loss of \$34.6 million for the year ended September 30, 1998. The change in operating loss was primarily due to the \$19.5 million one-time charge for in-process research and development written off in connection with the purchase of MODE. Additionally, recurring research and development expense increased by \$7.5 million from the prior year, as a result of increased research and development activities at MODE and in our core business. In addition, the General Motors three-month strike adversely affected operating performance as shipments to General Motors were halted during the strike. General Motors is among EMCORE's largest customers. EMCORE was unable to furlough or reduce their workforce during the strike and thereby incurred charges without the benefit of related revenues.

**OTHER EXPENSE.** Other expenses decreased, particularly due to the reduced imputed warrant interest expense associated with EMCORE's subordinated debt and debt issuance guarantee cost. During fiscal 1996, EMCORE issued detachable warrants along with subordinated notes to certain of its existing shareholders. In fiscal 1997, EMCORE also issued detachable warrants in return for a \$10.0 million demand note facility guarantee by the Chairman of the Board of EMCORE, who provided collateral for the facility. EMCORE subsequently assigned a value to these detachable warrants issued using the Black-Scholes option-pricing model. EMCORE recorded the subordinated notes at a carrying value that is subject to periodic accretions, using the interest method, and reflected the facility's detachable warrant value as debt issuance cost which was written off in its entirety in fiscal 1997. The consequent expense of these subordinated note accretion amounts and the now terminated facility's debt issuance cost is charged to "imputed warrant interest, non-cash," and amounted to approximately \$4.0 million and \$601,000 for the fiscal years ended September 30, 1997 and 1998, respectively. In June 1998, EMCORE issued 284,684 warrants to its Chairman and its Chief Executive Officer for providing a guarantee in connection with the 1998 Agreement, an \$8.0 million 18-month credit facility with First Union National Bank. EMCORE assigned a value to these warrants using the Black-Scholes option-pricing model.

**INCOME TAXES.** EMCORE's effective income tax rate was 2.5% in fiscal 1997 and 0.0% in fiscal 1998. The lower effective rate in fiscal 1998, relative to fiscal 1997, was attributable to a federal income tax benefit offset by net operating loss and expenses not utilized or deductible for tax purposes.

**EXTRAORDINARY ITEM.** In the fiscal year ended September 30, 1997, EMCORE repaid \$2.0 million of its outstanding subordinated notes due May 1, 2001. In connection with this discharge of EMCORE's subordinated notes, an extraordinary loss of \$285,000 was recognized in fiscal 1997 relating to such early extinguishment of debt.

**NET LOSS.** Net loss increased from \$5.6 million for the fiscal year ended September 30, 1997 to \$36.4 million for the fiscal year ended September 30, 1998. This increase was primarily attributable to the acquisition of MODE and subsequent write-off of in-process research and development of \$19.5 million as well as an increase in recurring research and development expenses of \$7.5 million. In addition, the General Motors three-month prolonged strike adversely affected operating performance.

## QUARTERLY RESULTS OF OPERATIONS

The following tables present EMCORE's unaudited results of operations expressed in dollars and as a percentage of revenues for the eight most recently ended fiscal quarters. EMCORE believes that all necessary adjustments, consisting only of normal recurring adjustments, have been included in the amounts below to present fairly the selected quarterly information when read in conjunction with the consolidated financial statements and notes included elsewhere in this document. EMCORE's results from operations may vary substantially from quarter to quarter. Accordingly, the operating results for a quarter are not necessarily indicative of results for any subsequent quarter or for the full year.

(in thousands)	DEC. 31, 1997	MAR. 31, 1998	JUNE 30, 1998	SEPT. 30, 1998	DEC. 31, 1998	MAR. 31, 1999	JUN. 30, 1999	SEPT. 30, 1999
Revenues	\$ 12,357	\$ 13,808	\$ 9,074	\$ 8,521	\$ 10,125	\$ 16,072	\$ 17,667	\$ 14,477
Cost of sales	6,376	7,534	5,448	5,317	6,016	9,203	9,853	8,086
Gross profit	5,981	6,274	3,626	3,204	4,109	6,869	7,814	6,391
Operating expenses:								
Selling, general & administrative	3,003	2,901	4,596	3,582	3,144	3,225	3,650	4,414
Goodwill amortization	343	1,099	1,098	1,098	1,099	1,098	1,098	1,098
Research & development:								
Recurring	2,836	2,889	5,887	4,883	5,924	4,348	4,959	5,482
One-time acquired in process	19,516	--	--	--	--	--	--	--
Total operating expenses	25,698	6,889	11,581	9,563	10,167	8,671	9,707	10,994
Operating (loss) income	(19,717)	(615)	(7,955)	(6,359)	(6,058)	(1,802)	(1,893)	(4,603)
Stated interest expenses, net	70	47	211	626	230	463	290	(117)
Imputed warrant interest, non-cash	96	96	94	315	316	317	410	93
Equity in net loss of unconsolidated affiliates	--	--	--	198	276	1,395	1,311	2,015
Total other expenses	166	143	305	1,139	822	2,175	2,011	1,991
(Loss) income before income taxes	(19,883)	(758)	(8,260)	(7,498)	(6,880)	(3,977)	(3,904)	(6,594)
Provision for income taxes	--	20	--	--	--	--	--	--
(Loss) income before extraordinary item	(19,883)	(778)	(8,260)	(7,498)	(6,880)	(3,977)	(3,904)	(6,594)
Extraordinary loss	--	--	--	--	--	--	1,334	--
Net (loss) income	\$(19,883)	\$ (778)	\$ (8,260)	\$ (7,498)	\$ (6,880)	\$ (3,977)	\$ (5,238)	\$ (6,594)

	DEC. 31, 1997	MAR. 31, 1998	JUNE 30, 1998	SEPT. 30, 1998	DEC. 31, 1998	MAR. 31, 1999	JUN. 30, 1999	SEPT. 30, 1999
Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of sales	51.6	54.6	60.0	62.4	59.4	57.3	55.8	55.9
Gross profit	48.4	45.4	40.0	37.6	40.6	42.7	44.2	44.1
Operating expenses:								
Selling, general & administrative	24.3	21.0	50.7	42.0	31.0	20.1	20.7	30.5
Goodwill amortization	2.8	7.9	12.1	12.9	10.9	6.8	6.2	7.6
Research & development:								
Recurring	23.0	20.9	64.9	57.3	58.5	27.0	28.1	37.9
One-time acquired in process	157.9	--	--	--	--	--	--	--
Total operating expenses	208.0	49.8	127.7	112.2	100.4	53.9	55.0	76.0
Operating (loss) income	(159.6)	(4.4)	(87.7)	(74.6)	(59.8)	(11.2)	(10.8)	(31.9)
Stated interest expenses, net	0.6	0.3	2.3	7.3	2.3	2.9	1.6	(0.8)
Imputed warrant interest, non-cash	0.8	0.7	1.0	3.7	3.1	2.0	2.3	0.6
Equity in net loss of unconsolidated affiliates	--	--	--	2.3	2.7	8.6	7.4	13.9

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Total other expenses	1.4	1.0	3.3	13.3	8.1	13.5	11.3	13.7
(Loss) income before income taxes	(161.0)	(5.4)	(91.0)	(87.9)	(67.9)	(24.7)	(22.1)	(45.6)
Provision for income taxes	--	0.2	--	--	--	--	--	--
	-----	-----	-----	-----	-----	-----	-----	-----
(Loss) income before extraordinary item	(161.0)	(5.6)	(91.0)	(87.9)	(67.9)	(24.7)	(22.1)	(45.6)
Extraordinary loss	--	--	--	--	--	--	7.6	--
Net (loss) income	(161.0)	(5.6)	(91.0)	(87.9)	(67.9)	(24.7)	(29.7)	(45.6)
	=====	=====	=====	=====	=====	=====	=====	=====

From inception through December 31, 1996, EMCORE derived the majority of its revenues from the sale of TurboDisc(TM) production systems. Beginning in January 1997, EMCORE expanded its product line to offer wafers and devices. Throughout fiscal year 1997 and the first half of fiscal year 1998, EMCORE benefited from the expanded product offerings. Early in fiscal year 1998, the capital equipment market experienced a downturn and bookings of TurboDisc(TM) systems decreased substantially. The result was lower revenues for the last two quarters of fiscal year 1998 and the first quarter of fiscal year 1999. Since then, the bookings of TurboDisc(TM) systems has substantially increased as well as bookings for our materials-related products. EMCORE's backlog at September 30, 1999 was \$43.1 million, which represents the highest amount for any year-end in the Company's history.

Cost of sales was also affected by revenue shifts. Gross profit improved consistently from the introduction of the new product lines through the second quarter of fiscal year 1998. Thereafter, in late fiscal year 1998 and into the early part of fiscal year 1999, gross profit was affected primarily by reduced revenues and the resulting under-absorbed overhead. Since then, with increased revenues, gross profit has increased at a relatively consistent percentage rate.

Operating expenses have generally increased both in absolute dollars and as a percentage of revenues, due to increased staffing in research and development, sales and marketing, and general and administrative functions. The increase in research expenditures was related to the development of systems for the processing of gallium nitride materials used in the production of blue HB LEDs, enhancement of production systems, and the introduction of wafers and devices, in particular, MR sensors, VCSELs and solar cells. Selling, general and administrative expenses increased as a result of increased marketing and sales related activities, including the hiring of additional personnel, commissions, customer samples, expansion of facilities, and the opening of field offices in Taiwan and California.

EMCORE has experienced and expects to continue to experience significant fluctuations in quarterly results. Factors which have had an influence on and may continue to influence EMCORE's operating results in a particular quarter include, but are not limited to, the timing of receipt of orders, cancellation, rescheduling or delay in product shipment or supply deliveries, product mix, competitive pricing pressures, EMCORE's ability to design, manufacture and ship products on a cost effective and timely basis, including the ability of EMCORE to achieve and maintain acceptable production yields for wafers and devices, regional economic conditions and the announcement and introduction of new products by EMCORE and by its competitors. The timing of sales of EMCORE's TurboDisc(TM) production systems may cause substantial fluctuations in quarterly operating results due to the substantially higher per unit price of these products relative to EMCORE's other products. If the compound semiconductor industry experiences downturns or slowdowns, EMCORE's business, financial condition and results of operations may be materially and adversely affected.

#### LIQUIDITY AND CAPITAL RESOURCES

Cash and cash equivalents increased by \$2.7 million from \$4.5 million at September 30, 1998 to \$7.2 million at September 30, 1999. For the fiscal year ended September 30, 1999, net cash used for operations amounted to \$15.2 million, primarily due to EMCORE's net loss, an increase in accounts receivable and a decrease in accounts payable.

For the fiscal year ended September 30, 1999, net cash used for investment activities amounted to \$31.3 million, primarily due to the purchase and manufacture of new equipment for the facilitation of EMCORE's wafer and device product lines, and clean room modifications and enhancements of approximately \$17.1 million, as well as investments in unconsolidated affiliates of approximately \$14.2 million.

Net cash provided by financing activities for the fiscal year ended September 30, 1999 amounted to approximately \$49.2 million, primarily due to the \$52.0 million of net proceeds from the public offering in June 1999, \$21.2 million of net proceeds from the private placement of preferred stock in November 1998 and long-term convertible subordinated debenture of \$7.8 million. This was offset by debt repayments of \$33.5 million on bank loans, short-term related party debt and subordinated debt.

In March 1997, the Company entered into a \$10.0 million loan agreement with First Union National Bank (the "Loan Agreement") that had an interest rate of Prime plus 50 basis points (8.75% at September 30, 1998). As of September 30, 1998, the Company had \$9,950,000 outstanding under this facility. As of September 30, 1999, there were no amounts outstanding under this facility. The Loan Agreement contains financial covenants which, among other things, require maintenance of certain financial ratios, liquidity and net worth. As a result of the net loss for certain quarters in the years ended September 30, 1998 and 1999, the Company was not in compliance with the Loan Agreement's debt covenants. The Company received a waiver from the bank regarding this non-compliance. Subsequent to year-end 1999, the Company's Loan Agreement was extended through January 31, 2001. The Loan Agreement's financial covenants were modified under the third amendment, and management believes that the Company will be able to comply with such requirements throughout fiscal year 2000.

EMCORE's planned capital expenditures are expected to total approximately \$16.8 million during fiscal year 2000, including approximately \$7.8 million in expenditures related to investments in our joint ventures. Capital spending in fiscal year 2000 also is expected to include upgrading manufacturing facilities, continued investment in analytical and diagnostic research and development equipment, upgrading and purchasing computer equipment and the manufacture of TurboDisc(TM) systems for in-house use.

EMCORE believes that its current liquidity, together with available credit, should be sufficient to meet its cash needs for working capital through fiscal year 2000. However, if the available credit facilities, cash generated from operations and cash on hand are not sufficient to satisfy EMCORE's liquidity requirements, EMCORE will seek to obtain additional equity or debt financing. Additional funding may not be available when needed or on terms acceptable to EMCORE. If EMCORE is required to raise additional financing and if adequate funds are not available or not available on acceptable terms, the ability to continue to fund expansion, develop and enhance products and services, or otherwise respond to competitive pressures will be severely limited. Such a limitation could have a material adverse effect on EMCORE's business, financial condition or operations.

In January 1999, Rockwell settled litigation that challenged the validity of certain patents which EMCORE licensed from Rockwell prior to the commencement of the litigation. As a result of this settlement, EMCORE will be required to pay Rockwell a royalty including interest under our license agreement relating to TurboDisc(TM) tools. EMCORE believes it has adequately accrued for these royalties. In addition, prior to the commencement of the litigation, EMCORE had initiated discussions with Rockwell to receive additional licenses to permit EMCORE to use the technology to manufacture and sell wafers and devices. EMCORE may be required to pay royalties to Rockwell for certain past sales of wafers and devices to customers who do not hold licenses directly from Rockwell. Management has reviewed and reassessed the royalty agreements and concluded that it has the appropriate amounts reserved for at both September 30, 1998 and 1999. We are currently negotiating with Rockwell to obtain the necessary licenses to continue to manufacture and sell wafers and devices. The Rockwell patent expires in January 2000. The failure to obtain licenses to manufacture these wafers and devices on commercially reasonable terms may materially and adversely affect our business, financial condition and results of operations through January 2000.

Many currently installed computer systems and software products are coded to accept or recognize only two digit entries in the date code field. These systems and software products will need to accept four digit entries to distinguish 21st century dates from 20th century dates. As a result, computer systems and/or software used by many companies and governmental agencies may need to be upgraded to comply with such Year 2000 requirements or risk system failure or miscalculations causing disruptions of normal business activities.

STATE OF READINESS. EMCORE has made an assessment of the Year 2000 readiness of its operating financial and administrative systems, including the hardware and software that support such systems. EMCORE's assessment plan consisted of:

- (1) contacting third-party vendors and licensors of material hardware, software and services that are both directly and indirectly related to EMCORE's business;
- (2) contacting vendors of third-party systems;
- (3) assessing repair or replacement requirements;
- (4) implementing repair or replacement; and
- (5) creating contingency plans in the event of Year 2000 failures.

Our compound semiconductor wafers and devices are date insensitive and, therefore, do not have any Year 2000 issues associated with them. Our TurboDisc(TM) production systems have several components that could give rise to Year 2000 compliance concerns. We have assessed the Year 2000 issues associated with these components and have found that they have either been certified by the vendor to be compliant or are date insensitive.

Our principal concern has been the status of our operating, financial and administrative systems. These systems include accounting and production control software at our New Jersey and the two New Mexico facilities. All software has been certified as Year 2000 compliant by the vendors.

There are other information technology systems and non-information technology systems that could give rise to Year 2000 concerns. These include scientific and engineering applications, desktop applications (such as Microsoft Word and Excel) and facilities controls such as HVAC and security. A review of these systems leads us to believe that the systems are Year 2000 compliant, are not critical to business operations, are used on a limited basis or are date insensitive.

COSTS. To date, EMCORE has not incurred any material expenditures in connection with identifying, evaluating or addressing Year 2000 compliance issues. Most of EMCORE expenses have related to, and are expected to continue to relate to, the operating costs associated with time spent by employees in the evaluation process and Year 2000 compliance matters generally. The exact costs related to Year 2000 compliance are difficult to determine EMCORE's costs for bringing our in-house information technology systems into compliance should not exceed \$200,000. EMCORE does not anticipate that remediation expenses will be material. If the remediation expenses are higher than anticipated EMCORE's business, financial condition and results of operations could be materially and adversely affected.

RISKS. EMCORE is not currently aware of any Year 2000 compliance problems relating to its systems that would have a material adverse effect on EMCORE's business, results of operations and financial condition. There can be no assurance that EMCORE will not discover Year 2000 compliance problems in its systems that will require substantial revision. In addition, there can be no assurance that third-party software, hardware or services incorporated into EMCORE's material systems will not need to be revised or replaced, all of which could be time-consuming and expensive. The failure of EMCORE to fix or replace its internally developed proprietary software or third-party software, hardware or services on a timely basis could result in lost revenues, increased operating costs, the loss of customers and other business interruptions, any of which could have a material adverse effect on EMCORE's business, result of operations and financial condition. In addition, the failure of governmental agencies, utility companies, third-party service providers and others outside of EMCORE's control to be Year 2000 compliant could result in systemic failure beyond EMCORE's control such as a telecommunications or electrical failure, which could have a material adverse effect on EMCORE's business, results of operations and financial condition.

In March 1998, the American Institute of Certified Public Accountants ("AICPA") issued Statement of Position ("SOP") 98-1, "Accounting for the Cost of Computer Software Developed or Obtained for Internal Use" ("SOP 98-1"). SOP 98-1 provides guidance over accounting for computer software developed or obtained for internal use including the requirement to capitalize specified costs and amortization of such costs. EMCORE will be required to adopt this standard in its fiscal year ending September 30, 2000. EMCORE does not expect the adoption of this standard to have a material effect on results of operations, financial position or cash flows.

In April 1998, the AICPA issued SOP 98-5, "Reporting on the Costs of Start-Up Activities". SOP 98-5 provides guidance on the financial reporting of start-up costs and organization costs. It requires costs of start-up activities and organization costs to be expensed as incurred. EMCORE will be required to adopt this standard in its fiscal year ending September 30, 2000. The adoption of this standard is not expected to have a material impact on EMCORE's results of operations, financial position or cash flows.

In June 1998, the FASB issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." This statement establishes accounting and reporting standards for derivative instruments and requires recognition of all derivatives as assets or liabilities in the statement of financial position and measurement of these instruments at fair value. The statement, as amended, is effective for fiscal years beginning after June 15, 2000. EMCORE will be required to adopt this standard, as amended, in its fiscal year ending September 30, 2001. Management believes that adopting this statement will not have a material impact on the financial position, results of operations, or cash flows of EMCORE.

#### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

During fiscal years 1998 and 1999, EMCORE was not a party to any derivative contracts, hedging or other material market risk transactions.

## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

EMCORE CORPORATION  
CONSOLIDATED BALANCE SHEETS  
AS OF SEPTEMBER 30, 1998 AND 1999  
(IN THOUSANDS, EXCEPT SHARE DATA)

	1998	1999
	-----	-----
ASSETS		
Current assets:		
Cash and cash equivalents.....	\$ 4,456	\$ 7,165
Restricted cash.....	62	--
Accounts receivable, net of allowance for doubtful accounts of \$611 and \$563 at September 30, 1998 and 1999, respectively.....	7,438	11,423
Accounts receivable - related parties.....	500	2,480
Inventories, net.....	12,445	13,990
Costs in excess of billings on uncompleted contracts.....	78	123
Prepaid expenses and other current assets.....	130	266
	-----	-----
Total current assets.....	25,109	35,447
Property, plant and equipment, net.....	36,210	46,282
Goodwill, net.....	9,519	5,126
Investments in unconsolidated affiliates.....	292	9,496
Other assets, net.....	2,090	3,260
	-----	-----
Total assets.....	\$ 73,220	\$ 99,611
	=====	=====
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Note payable - related party.....	\$ 7,000	\$ --
Accounts payable.....	12,023	5,359
Accrued expenses.....	4,197	4,173
Advanced billings.....	3,180	4,350
Capitalized lease obligation - current.....	673	713
Other current liabilities.....	53	162
	-----	-----
Total current liabilities.....	27,126	14,757
Bank loans.....	17,950	--
Convertible subordinated debenture.....	--	7,800
Subordinated notes, net.....	7,809	--
Capitalized lease obligation, net of current portion.....	755	141
Other liabilities.....	--	1,097
	-----	-----
Total liabilities.....	53,640	23,795
Commitments and contingencies		
Mandatorily redeemable convertible preferred stock, 1,030,000 shares issued and outstanding at September 30, 1999 (redeemable at maturity for \$14,420).....	--	14,193
Shareholders' equity:		
Preferred stock, \$0.0001 par, 5,882,353 shares authorized.....	--	--
Common stock, no par value, 50,000,000 shares authorized, 9,375,952 shares issued and outstanding in 1998; 13,353,807 shares issued and outstanding in 1999.....	87,443	152,426
Accumulated deficit.....	(60,196)	(83,256)
Notes receivable from warrant issuance and stock sales.....	(7,667)	(7,547)
	-----	-----
Total shareholders' equity.....	19,580	61,623
	-----	-----
Total shareholders' equity and mandatorily redeemable preferred stock.....	19,580	75,816
	-----	-----
Total liabilities, shareholders' equity and mandatorily redeemable preferred stock.	\$ 73,220	\$ 99,611
	=====	=====

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF  
THESE CONSOLIDATED FINANCIAL STATEMENTS.



EMCORE CORPORATION  
CONSOLIDATED STATEMENTS OF OPERATIONS  
FOR THE YEARS ENDED SEPTEMBER 30, 1997, 1998 AND 1999  
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	1997	1998	1999
	-----	-----	-----
Revenues:			
Systems-related .....	\$ 34,091	\$ 26,324	\$ 44,477
Materials-related .....	13,661	17,436	13,864
	-----	-----	-----
Total revenues .....	47,752	43,760	58,341
Cost of revenues:			
Systems-related .....	24,250	15,942	26,522
Materials-related .....	5,844	8,734	6,636
	-----	-----	-----
Total cost of revenues .....	30,094	24,676	33,158
	-----	-----	-----
Gross profit .....	17,658	19,084	25,183
Operating expenses:			
Selling, general and administrative .....	9,346	14,082	14,433
Goodwill amortization .....	--	3,638	4,393
Research and development - recurring .....	9,001	16,495	20,713
Research and development - one time acquired in-process, non-cash .....	--	19,516	--
	-----	-----	-----
Total operating expenses .....	18,347	53,731	39,539
	-----	-----	-----
Operating loss .....	(689)	(34,647)	(14,356)
Other (income) expense:			
Stated interest income .....	(237)	(448)	(751)
Stated interest expense .....	757	1,421	1,617
Imputed warrant interest expense, non-cash ....	3,988	601	1,136
Equity in net loss of unconsolidated affiliates .....	--	198	4,997
	-----	-----	-----
Loss before income taxes and extraordinary item ..	(5,197)	(36,419)	(21,355)
Provision for income taxes .....	137	--	--
	-----	-----	-----
Loss before extraordinary item .....	(5,334)	(36,419)	(21,355)
Extraordinary item - loss on early extinguishment of debt .....	285	--	1,334
	-----	-----	-----
Net loss .....	\$ (5,619)	\$(36,419)	\$(22,689)
	=====	=====	=====
Per share data:			
Weighted average basic and diluted shares outstanding used in per share data calculations	4,669	8,775	10,590
	-----	-----	-----
Loss per basic and diluted share before extraordinary item .....	\$ (1.14)	\$ (4.15)	\$ (2.05)
	=====	=====	=====
Net loss per basic and diluted share .....	\$ (1.20)	\$ (4.15)	\$ (2.18)
	=====	=====	=====

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE  
CONSOLIDATED FINANCIAL STATEMENTS.

EMCORE CORPORATION  
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY  
AS OF SEPTEMBER 30, 1997, 1998 AND 1999  
(IN THOUSANDS, EXCEPT SHARE DATA)

	Common Stock		Accumulated Deficit	Shareholders' Notes Receivable	Total Shareholders' Equity
	Shares	Amount			
BALANCE AT SEPTEMBER 30, 1996.....	2,994,461	\$ 18,978	\$(18,158)	\$ (298)	\$ 522
Issuance of common stock purchase warrants.....		3,601			3,601
Issuance of common stock in initial public offering, net of issuance cost of \$3,110.....	2,875,000	22,765			22,765
Stock purchase warrant exercise.....	94,124	384			384
Stock option exercise.....	34,965	54			54
Redemptions of shareholders' notes receivable..				32	32
Forgiveness of notes receivable from shareholder.....				57	57
Compensatory stock issuance.....	1,841	35			35
Net loss.....	-----	-----	(5,619)	-----	(5,619)
BALANCE AT SEPTEMBER 30, 1997.....	6,000,391	\$ 45,817	\$(23,777)	\$ (209)	\$ 21,831
Issuance of common stock purchase warrants.....		1,310			1,310
Issuance of common stock on exercise of warrants in exchange for note receivable....	1,827,966	7,458		(7,458)	--
Issuance of common stock and common stock purchase options and warrants in connection with the acquisition of MODE.....	1,461,866	32,329			32,329
Stock option exercise.....	35,809	83			83
Stock purchase warrant exercise.....	5,660	23			23
Issuance of common stock on exercise of warrants in exchange for subordinated notes.	17,605	72			72
Compensatory stock issuance.....	26,655	351			351
Net loss.....	-----	-----	(36,419)	-----	(36,419)
BALANCE AT SEPTEMBER 30, 1998.....	9,375,952	\$ 87,443	\$(60,196)	\$(7,667)	\$ 19,580
Preferred stock dividends.....			(319)		(319)
Periodic accretion of redeemable preferred stock to mandatory redemption value.....			(52)		(52)
Issuance of common stock purchase warrants.....		2,596			2,596
Issuance of common stock from public offering, net of issuance cost of \$5,000.....	3,000,000	52,000			52,000
Stock option exercise.....	110,072	376			376
Stock purchase warrant exercise.....	321,467	2,450			2,450
Conversion of mandatorily redeemable convertible preferred stock into common stock.....	520,000	7,125			7,125
Redemptions of shareholders' notes receivable..				120	120
Compensatory stock issuance.....	26,316	436			436
Net loss.....	-----	-----	(22,689)	-----	(22,689)
BALANCE AT SEPTEMBER 30, 1999.....	<u>13,353,807</u>	<u>\$152,426</u>	<u>\$(83,256)</u>	<u>\$(7,547)</u>	<u>\$ 61,623</u>

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE  
CONSOLIDATED FINANCIAL STATEMENTS.

EMCORE CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED SEPTEMBER 30, 1997, 1998 AND 1999  
(IN THOUSANDS)

	1997	1998	1999
	-----	-----	-----
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	\$ (5,619)	\$(36,419)	\$(22,689)
Adjustments to reconcile net loss to net cash provided by (used for) operating activities:			
Acquired in-process research and development, non-cash	--	19,516	--
Depreciation and amortization	3,188	8,767	11,575
Provision for doubtful accounts	515	1,118	390
Provision for inventory valuation	120	120	40
Deferred gain on sale to unconsolidated affiliate	--	--	1,259
Detachable warrant accretion and debt issuance cost amortization	3,988	601	1,136
Extraordinary loss on early extinguishment of debt	286	--	1,335
Equity in net loss of unconsolidated affiliates	--	198	4,997
Compensatory stock issuance	35	351	436
Write-off of note receivable due from shareholder	57	--	--
Change in assets and liabilities:			
Accounts receivable - trade	(5,930)	2	(4,375)
Accounts receivable - related party	(2,500)	2,000	(1,980)
Inventories	399	(5,243)	(1,585)
Costs in excess of billings on uncompleted contracts	19	(77)	(46)
Prepaid expenses and other current assets	(60)	13	(94)
Other assets	28	(624)	(69)
Accounts payable	(2,029)	7,950	(6,664)
Accrued expenses	1,881	(970)	(24)
Advanced billings	(1,308)	1,182	1,170
Unearned service revenue	112	(72)	(53)
	-----	-----	-----
Total adjustments	(1,259)	34,832	7,448
	-----	-----	-----
Net cash and cash equivalents used for operating activities	(6,878)	(1,587)	(15,241)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property, plant, and equipment	(11,631)	(22,132)	(17,110)
Acquisition, cash acquired	--	193	--
Investments in unconsolidated affiliates	--	(490)	(14,203)
(Funding) payments of restricted cash	(313)	250	62
	-----	-----	-----
Net cash and cash equivalents used for investing activities	(11,944)	(22,179)	(31,251)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from initial public offering, net of issuance cost of \$3,110	22,765	--	--
Proceeds from preferred stock offering, net of issuance cost of \$500	--	--	21,200
Proceeds from public stock offering, net of issuance cost of \$5,000	--	--	52,000
Proceeds under convertible subordinated debenture	--	--	7,800
Proceeds (payments) under bank loans	--	17,950	(17,950)
Proceeds (payments) under notes payable - related party	--	7,000	(7,000)
Payments on demand note facility and subordinated debt	(2,000)	--	(8,563)
Proceeds from exercise of stock purchase warrants	85	23	2,164
Proceeds from exercise of stock options	54	83	376
Payments on capital lease obligations	(6)	(487)	(573)
Dividends paid on preferred stock	--	--	(253)
Reduction in notes receivable from shareholders	210	--	--
	-----	-----	-----
Net cash and cash equivalents provided by financing activities	21,108	24,569	49,201
	-----	-----	-----
Net increase in cash and cash equivalents	2,286	803	2,709
Cash and cash equivalents, beginning of year	1,367	3,653	4,456
	-----	-----	-----
Cash and cash equivalents, end of year	\$ 3,653	\$ 4,456	\$ 7,165
	=====	=====	=====

EMCORE CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS - CONTINUED  
FOR THE YEARS ENDED SEPTEMBER 30, 1997, 1998 AND 1999  
(IN THOUSANDS)

	1997	1998	1999
	-----	-----	-----
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Cash paid for interest	\$ 600	\$ 1,347	\$ 1,739
NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Common stock issued on the exercise of warrants in exchange for subordinated notes	--	72	--
Issuance of common stock on the exercise of warrants in exchange for notes receivable	--	7,458	--
Issuance of common stock, common stock purchase options and warrants in connection with the acquisition of MicroOptical Devices, Inc	--	32,329	--
Conversion of mandatorily redeemable convertible preferred stock to common stock	--	--	7,280

Reference is made to Note 8 - Debt Facilities - for disclosure relating to certain non-cash warrant issuance.

Reference is made to Note 11 - Stockholders' Equity - for disclosure relating to certain non-cash equity transactions.

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE  
CONSOLIDATED FINANCIAL STATEMENTS.

NOTES TO FINANCIAL STATEMENTS

As of September 30, 1998 and 1999 and for the years ended September 30, 1997, 1998 and 1999

NOTE 1. DESCRIPTION OF BUSINESS

EMCORE Corporation (the "Company"), a New Jersey Corporation, designs, develops and manufactures compound semiconductor materials and is a leading developer and manufacturer of the tools and manufacturing processes used to fabricate compound semiconductor wafers and devices. EMCORE's products and technology enable its customers, both in the United States and internationally, to manufacture commercial volumes of high-performance electronic devices using compound semiconductors. EMCORE has recently established a number of strategic relationships through joint ventures, long-term supply agreements and an acquisition in order to facilitate the development and manufacture of new products in targeted growth markets. EMCORE's products are used for a wide variety of applications in the communications (satellite, data, telecommunications and wireless), consumer and automotive electronics, computers and peripherals, and lighting markets. The Company offers its customers a complete, vertically integrated solution for the design, development and production of compound semiconductor wafers and devices.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**PRINCIPLES OF CONSOLIDATION.** The consolidated financial statements include the accounts of the Company and its wholly owned subsidiary. The equity method of accounting is used for unconsolidated affiliates where the Company exercises significant influence, generally when ownership is at least 20% and not more than 50%. All intercompany accounts and transactions are eliminated upon consolidation. Prior period balances have been reclassified to conform to the current period financial statement presentation.

**CASH AND CASH EQUIVALENTS.** The Company considers all highly liquid short-term investments purchased with an original maturity of three months or less to be cash equivalents. The Company had approximately \$3.0 million and \$5.7 million in cash equivalents at September 30, 1998 and 1999, respectively.

**INVENTORIES.** Inventories are stated at the lower of FIFO (first-in, first-out) cost or market. Reserves are established for slow moving or obsolete inventory based upon historical and anticipated usage.

**PROPERTY AND EQUIPMENT.** Property and equipment are stated at cost. Significant renewals and betterments are capitalized. Maintenance and repairs, which do not extend the useful lives of the respective assets, are expensed. Depreciation is recorded using the straight-line method over the estimated useful lives of the applicable assets, which range from three to five years. Leasehold improvements are amortized using the straight-line method over the term of the related leases or the estimated useful lives of the improvements, whichever is less. Depreciation expense includes the amortization of capital lease assets. When assets are retired or otherwise disposed of, the assets and related accumulated depreciation accounts are adjusted accordingly, and any resulting gain or loss is recorded in current operations.

**LONG-LIVED ASSETS.** The carrying amount of long-lived assets are reviewed on a regular basis for the existence of facts or circumstances, both internally and externally, that suggest impairment. To date no such impairment has been indicated. The Company determines if the carrying amount of a long-lived asset is impaired based on anticipated undiscounted cash flows before interest. In the event of an impairment, a loss is recognized based on the amount by which the carrying amount exceeds fair value of the asset. Fair value is determined primarily using the anticipated cash flows before interest, discounted at a rate commensurate with the risk involved.

DEFERRED COSTS. Included in other assets are various deferred costs and warrant valuation costs. The deferred costs are primarily related to obtaining product patents that are being amortized over five years. Total amortization expense amounted to approximately \$40,000 \$79,000 and \$143,000 for the years ended September 30, 1997, 1998 and 1999, respectively. During the year ended September 30, 1998, EMCORE issued 284,684 common stock purchase warrants in exchange for the guaranteeing of a credit facility by both the Chairman and Chief Executive Officer of EMCORE. These warrants were assigned a value of \$1.3 million using the Black-Scholes Option Pricing Model ("Black-Scholes"). Amortization expense, recorded as imputed warrant interest expense, related to these warrants amounted to \$219,000 and \$657,000 for the years ended September 30, 1998 and 1999, respectively. On June 15, 1999 with the completion of EMCORE's public offering, this credit facility was cancelled, and the remaining \$434,000 of this warrant valuation was recognized as an extraordinary charge related to the early extinguishment of debt. Also, during the year ended September 30, 1999, EMCORE issued 282,010 common stock purchase warrants to General Electric for financing EMCORE's initial capital contribution in the GELcore joint venture through the issuance of a \$7.8 million subordinated debenture. The warrants were assigned a value of \$2.6 million also using the Black-Scholes option pricing model. Amortization expense related to these warrants, also recorded as imputed warrant interest expense, amounted to \$186,000 for the year ended September 30, 1999.

GOODWILL. Goodwill is amortized using the straight-line method over three years. The Company, as applicable, evaluates whether there has been a permanent impairment in the value of goodwill. Any impairment would be recognized when the sum of expected undiscounted cash flows derived from the acquired business is less than its carrying value.

INCOME TAXES. The Company recognizes deferred taxes by the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred income taxes are recognized for differences between the financial statement and tax bases of assets and liabilities at enacted statutory tax rates in effect for the years in which the differences are expected to reverse. The effect on deferred taxes of a change in tax rates is recognized in income in the period that includes the enactment date. In addition, valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized. The primary sources of temporary differences are depreciation and amortization of intangible assets.

REVENUE AND COST RECOGNITION - SYSTEMS- AND MATERIALS-RELATED REVENUES. Revenue from systems sales is recognized upon shipment, when title passes to the customer. Subsequent to product shipment, the Company incurs certain installation costs at the customer's facility and warranty costs that are estimated and accrued at the time the sale is recognized. Materials and service revenues are recognized when goods are shipped or services are rendered to the customer. Service revenue under contracts with specified service terms is recognized as earned over the service period in accordance with the terms of the applicable contract. Costs in connection with the procurement of the contracts are charged to expense as incurred.

REVENUE AND COST RECOGNITION - CONTRACT REVENUE. The Company's research contracts require the development or evaluation of new materials applications and have a duration of six to thirty-six months. For research contracts with the U.S. Government and commercial enterprises with a duration greater than six months, the Company recognizes revenue to the extent of costs incurred plus the estimated gross profit as stipulated in such contracts, based upon contract performance. Contracts with a duration of six months or less are accounted for on the completed contract method. A contract is considered complete when all costs, except insignificant items, have been incurred, and the research reporting requirements to the customer have been met. Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs and depreciation costs, as well as coverage of certain general and administrative costs. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Revenues from contracts amounted to approximately \$614,000, \$438,000 and \$1.4 million for the years ended September 30, 1997, 1998 and 1999, respectively.

RESEARCH AND DEVELOPMENT. Research and development costs related to the development of both present and future products and Company-sponsored materials application research are charged to expense as incurred. In connection with the acquisition of MicroOptical Devices, Inc. ("MODE"), the Company recorded a charge of \$19,516,000 for acquired in-process research and development.

**FAIR VALUE OF FINANCIAL INSTRUMENTS.** The Company estimates the fair value of its financial instruments based upon discounted cash flow analyses using the Company's incremental borrowing rate on similar instruments as the discount rate. As of September 30, 1999, the carrying values of the Company's cash and cash equivalents, accounts receivable and accounts payable as reflected on the Company's accompanying balance sheet approximates fair value.

**USE OF ESTIMATES.** The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Estimates also affect the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates. The Company's most significant estimates relate to acquired in-process research and development, accounts receivable and inventory valuation reserves, warranty and installation accruals, estimates of cost and related gross profits on certain research contracts and the valuation of long-lived assets.

**NET LOSS PER SHARE.** The Company accounts for earnings per share under the provision of Statement of Financial Accounting Standards No. 128 "Earnings per Share". Basic earnings per common share was calculated by dividing net loss by the weighted average number of common stock shares outstanding during the period. The effect of outstanding common stock purchase options and warrants, the number of shares available to be issued upon the conversion of the Company's Series I Preferred Stock and the number of shares to be issued upon conversion of the convertible subordinated debenture have been excluded from the earnings per share calculation since the effect of such securities is anti-dilutive. The following table reconciles the number of shares utilized in the earnings per share calculations.

(IN THOUSANDS, EXCEPT PER SHARE DATA)	FOR THE FISCAL YEARS ENDED SEPTEMBER 30,		
	1997	1998	1999
Loss before extraordinary item	\$ (5,334)	\$(36,419)	\$(21,355)
Extraordinary item, loss on early retirement of debt	285	--	1,334
Net loss	\$ (5,619)	\$(36,419)	\$(22,689)
Preferred stock dividends	--	--	319
Periodic accretion of preferred stock to redemption value	--	--	52
Net loss attributable to common shareholders	\$ (5,619)	\$(36,419)	\$(23,060)
Loss per basic and diluted share before extraordinary item	\$ (1.14)	\$ (4.15)	\$ (2.05)
Net loss per basic and diluted share	\$ (1.20)	\$ (4.15)	\$ (2.18)
Weighted average of outstanding common shares - basic	4,669	8,775	10,590
Effect of dilutive securities:			
Stock option and warrants	--	--	--
Preferred stocks	--	--	--
Convertible subordinated debenture	--	--	--
Weighted average of outstanding common shares - diluted	4,669	8,775	10,590

**CONCENTRATION OF CREDIT RISK.** The Company performs material application research under contract with the U.S. Government or as a subcontractor of U.S. Government funded projects. The demand for services and products is directly related to the level of funding of government programs. There can be no assurance that Federal programs will continue to be funded even if government agencies have available financial resources or that the Company will continue to be awarded contracts under such programs.

The Company performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral from its customers. The Company maintains reserves for potential credit losses based upon the credit risk of specified customers, historical trends and other information. To reduce credit risk and to fund manufacturing costs, the Company requires periodic prepayments or irrevocable letters of credit on most production system orders. During fiscal year 1998, the Company wrote off outstanding receivables of approximately \$1.0 million that was due from an Asian customer. Prior to this event, the Company's credit losses generally had not exceeded its expectations. Although such losses have been within management's expectations to date, there can be no assurance that such reserves will continue to be adequate.

The Company has maintained cash balances with certain financial institutions in excess of the \$100,000 insured limit of the Federal Deposit Insurance Corporation.

**SEGMENTS DATA.** Effective October 1, 1998, the Company adopted the Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 131, "Disclosures about Segments of an Enterprise and Related Information" ("SFAS No. 131"). SFAS No. 131 establishes standards for reporting information about operating segments in annual financial statements and selected information about operating segments in interim financial reports. It also establishes standards for related disclosures about products and services, geographic areas and major customers. The adoption of SFAS No. 131 did not affect results of operations or financial position, but did affect the disclosure of segment information (See Note 14).

**RECENT FINANCIAL ACCOUNTING PRONOUNCEMENTS** In March 1998, the American Institute of Certified Public Accountants ("AICPA") issued Statement of Position ("SOP") 98-1, "Accounting for the Cost of Computer Software Developed or Obtained for Internal Use" ("SOP 98-1"). SOP 98-1 provides guidance over accounting for computer software developed or obtained for internal use, including the requirement to capitalize specified costs and amortization of such costs. The Company is required to adopt this standard in its fiscal year ended September 30, 2000. The Company does not expect the adoption of this standard to have a material effect on its results of operations, financial position or cash flows.

In April 1998, AICPA issued SOP 98-5, "Reporting on the Costs of Start-Up Activities". SOP 98-5 provides guidance on the financial reporting of start-up costs and organization costs. It requires costs of start up activities and organization costs to be expensed as incurred. The Company is required to adopt this standard in its fiscal year ended September 30, 2000. The adoption of this standard is not expected to have a material impact on its results of operations, financial position or cash flows.

In June of 1998, the FASB issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." This statement establishes accounting and reporting standards for derivative instruments and requires recognition of all derivatives as assets or liabilities in the statement of financial position and measurement of these instruments at fair value. The statement, as amended, is effective for fiscal years beginning after June 15, 2000. The Company is required to adopt this standard, as amended, in its fiscal year ended September 30, 2001. Management believes that adopting this statement will not have a material impact on the financial position, results of operations, or cash flows of the Company.



## NOTE 3. ACQUISITION

On December 5, 1997, the Company acquired all of the outstanding capital stock of MicroOptical Devices, Inc. ("MODE") in exchange for 1,461,866 shares of EMCORE common stock, 200,966 common stock purchase options (exercise prices ranging from \$0.43 to \$0.59), and 47,118 common stock purchase warrants (exercise prices ranging from \$4.32 to \$5.92). The purchase price was approximately \$32,829,000 including direct acquisition costs of approximately \$500,000. The acquisition of MODE was recorded using the purchase method of accounting. Accordingly, the results of operations of the acquired business and the fair values of the acquired tangible and intangible assets and assumed liabilities have been included in the Company's financial statements as of December 5, 1997. The allocation of the fair value of the net assets acquired is as follows:

(in thousands)

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Net tangible assets	\$ 156
Goodwill	13,157
Acquired in process research and development	19,516
	-----
Total purchase price	\$32,829
	=====

The common stock issued in connection with the MODE acquisition was valued based upon the average closing price of the Company's common stock for the five days before and after the announcement date of the acquisition. The assumed MODE options and warrants were valued using Black-Scholes and such values amounted to approximately \$3,761,000 and \$793,000, respectively.

The MODE options have a term of 10 years from the date of grant, with such options expiring at various dates through July 2007. The options vest, with continued service, over a four-year period; 25% in year one and 75% equally over the remaining 36 months. The warrants have a term of 10 years from the date of grant, were exercisable upon grant, and expire at various dates through May 2007.

MODE was a development stage company (incorporated in August 1995) and had 18 employees at the date of acquisition. MODE's activities were substantially dedicated towards the research and development of optical laser devices at the date of acquisition.

Management is responsible for estimating the fair value of the acquired in-process research and development. As of the date of acquisition, MODE had six primary micro-optical laser research and development projects in-process, which had not reached technological feasibility. MODE's in-process research and development related to new technologies, the fair value assumptions relating to pricing, product margins and expense levels were based upon management's experience with its own operations and the compound semiconductor industry as a whole.

The Company allocated \$475,000 of the purchase price to the acquired workforce of MODE which is included in the approximately \$13.2 million of goodwill discussed above. The amount allocated to goodwill is being amortized over a period of three years.

## NOTE 4. JOINT VENTURES

In May 1999, EMCORE and General Electric Lighting formed GELcore, a joint venture to develop and market HB LED lighting products. General Electric Lighting and EMCORE have agreed that this joint venture will be the exclusive vehicle for each party's participation in solid state lighting. GELcore seeks to combine EMCORE's materials science expertise, process technology and compound semiconductor production systems with General Electric Lighting's brand name recognition and extensive marketing and distribution capabilities. GELcore's long-term goal is to develop products to replace traditional lighting. Under terms of the joint venture agreement, EMCORE has a 49% non-controlling interest in the GELcore venture and accounts for its investment under the equity method of accounting. EMCORE has seconded various employees to the joint venture to assist in the development of products.

In May, 1999, in connection with the GELcore venture, General Electric funded the Company's initial capital contribution of \$7.8 million into GELcore. The funding was in the form of a subordinated debenture (the "Debenture") with an interest rate of 4.75%. The Debenture will mature in 2006 and is convertible into common stock of the Company at a conversion price of \$22.875 or 340,984 shares. The Debenture is convertible at any time at the option of General Electric and may be called by the Company after three years, if the price of the Company's common stock has traded at or above \$34 for at least thirty days. In addition, General Electric also received 282,010 warrants to purchase common stock at \$22.875 per share. These warrants are exercisable at any time and will expire in 2006. These warrants were valued using the Black Scholes model, resulting in a valuation of \$2.6 million, which has been included in other assets. Such asset is being amortized over seven years. On a fully diluted basis, General Electric would own approximately 4.5% of the common stock of the Company.

For the fiscal year ended September 30, 1999, the Company recognized a loss of \$2.5 million related to this venture which has been recorded as a component of other income and expense. As of September 30, 1999, the Company's net investment in this venture amounted to \$5.3 million. The Company is obligated to fund the joint venture with an additional \$7.8 million in fiscal year 2000.

In November 1998, EMCORE formed UMCORE, a joint venture with Union Miniere Inc., a mining and materials company, to explore and develop alternate uses for germanium using EMCORE's materials science and production platform expertise and Union Miniere's access to and experience with germanium. EMCORE has a 50% non-controlling interest in the venture and accounts for its interest in the venture under the equity method of accounting. In fiscal year 1999, the Company invested \$896,000 in the venture. The Company is obligated to fund the venture's capital requirements in proportion to its equity interest. EMCORE has seconded various personnel to the joint venture to assist in the development of products. For the fiscal year ended September 30, 1999, the EMCORE recognized a loss of \$297,000 related to this venture which has been recorded as a component of other income and expense. As of September 30, 1999, the Company's net investment in this venture amounted to \$599,000.

In October 1998, EMCORE formed Emtech, a joint venture with Optek Technology, Inc., a packager and distributor of optoelectronic devices, to market an expanded line of magneto resistive sensors to the automotive and related industries. This joint venture combines EMCORE's expertise in the manufacture of magneto resistive die and Optek's expertise in packaging these die. This combination will provide customers with off-the-shelf products. No additional personnel are anticipated to meet the obligations to the joint venture. EMCORE has a 50% non-controlling interest in the venture and accounts for its interest in the venture under the equity method of accounting. EMCORE is obligated to fund the venture's capital requirements in proportion to its equity interest. As of September 30, 1999, EMCORE has not funded the joint venture nor has the joint venture commenced operations.

In December 1997, the Company and a wholly owned subsidiary of Uniroyal Technology Corporation formed Uniroyal Optoelectronics LLC ("UOE"), a joint venture, to manufacture, sell and distribute High Brightness (HB) LED wafers and package-ready devices. EMCORE has a 49% non-controlling interest in the joint venture and accounts for its investment under the equity method of accounting. In fiscal years 1998 and 1999, the Company invested \$490,000 and \$5.5 million, respectively, in the venture that is classified as a component of other long-term assets. During the fiscal year ended September 30, 1999, EMCORE sold three compound semiconductor production systems to the venture totaling \$5.3 million in revenues. EMCORE deferred gross profit of approximately \$1.3 million on such sales to the extent of its minority interest. Such deferred gross profit will be recognized ratably over the assigned life of the production systems purchased by the joint venture. For the fiscal years ended September 30, 1998 and 1999, the Company recognized a loss of \$198,000 and 2.2 million,

respectively related to this venture which has been recorded as a component of other income and expense. As of September 30, 1999, the Company's net investment in this venture amounted to \$3.6 million. The following summarized financial information of EMCORE's joint ventures, (GELcore, UMCORE and UOE), in aggregate, is provided as of and for the year ended September 30, 1999.

(in thousands)	UNAUDITED
-----	-----
Net sales	\$490
Gross loss	(600)
Net loss	(10,218)
Current assets	16,480
Non-current assets	21,567
Current liabilities	8,136
Non-current liabilities	17,790

#### NOTE 5. INVENTORIES

The components of inventories consisted of the following:

(in thousands)	As of September 30,	
	1998	1999
	-----	-----
Raw materials	\$11,346	\$ 9,146
Work-in-process	1,092	3,620
Finished goods	7	1,224
	-----	-----
Total	\$12,445	\$13,990
	=====	=====

#### NOTE 6. PROPERTY AND EQUIPMENT

Major classes of property and equipment are summarized below:

(in thousands)	As of September 30,	
	1998	1999
	-----	-----
Land	\$ 1,029	\$ 1,029
Building	7,493	9,179
Equipment	28,367	41,225
Furniture and fixtures	3,256	4,880
Leasehold improvements	9,948	10,764
Equipment, furniture and fixtures and leasehold improvement under capital lease	2,043	2,164
	-----	-----
	52,136	69,241
Less: accumulated depreciation and amortization	(15,926)	(22,959)
	-----	-----
Total	\$ 36,210	\$ 46,282
	=====	=====

At September 30, 1999, minimum future lease payments due under the capital leases are as follows:

(IN THOUSANDS)

Period ending:	
September 30, 2000	\$776
September 30, 2001	82
September 30, 2002	41
September 30, 2003	15
September 30, 2004	5
	-----
Total minimum lease payments	919
Less: amount representing interest (imputed interest rate of 14.4%)	(65)
	-----
Net minimum lease payments	854
Less: current portion	713
	-----
Long-term portion	\$141
	=====

The provisions for depreciation and amortization expense on owned property and equipment amounted to approximately \$3.1 million, \$4.7 million and \$6.6 million for the years ended September 30, 1997, 1998 and 1999, respectively. Accumulated amortization on assets accounted for as capital lease amounted to approximately \$366,000 and \$834,000 as of September 30, 1998 and 1999, respectively.

Included in equipment above are twenty systems and twenty-one systems with a combined net book value of approximately \$9.8 million and \$13.7 million at September 30, 1998 and 1999, respectively. Such systems are utilized for the production of compound semiconductor wafers and package-ready devices for sale to third parties, systems demonstration purposes, system sales support, in-house materials applications, internal research and contract research funded by third parties.

#### NOTE 7. ACCRUED EXPENSES

Accrued expenses consisted of the following:

(in thousands)	As of September 30,	
	1998	1999
	-----	-----
Accrued payroll, vacation and other employee expenses	\$2,114	\$1,631
Installation and warranty costs	704	929
Interest	346	129
Other	1,033	1,484
	-----	-----
Total	\$4,197	\$4,173
	=====	=====

## NOTE 8. DEBT FACILITIES

## CONVERTIBLE SUBORDINATED DEBENTURE

In May 1999, in connection with the GELcore venture, General Electric funded the Company's initial capital contribution of \$7.8 million into GELcore. The funding was in the form of a subordinated debenture (the "Debenture") with an interest rate of 4.75%. The Debenture will mature in 2006 and is convertible into common stock of the Company at a conversion price of \$22.875 or 340,984 shares. The Debenture is convertible at any time at the option of General Electric and may be called by the Company after three years, if the price of the Company's common stock has traded at or above \$34 for at least thirty days. In addition, General Electric also received 282,010 warrants to purchase common stock at \$22.875 per share. These warrants are exercisable at any time and will expire in 2006. These warrants were valued using the Black Scholes model, resulting in a valuation of \$2.6 million, which has been included in other assets. Such asset is being amortized over seven years and is charged to "Imputed warrant interest, non-cash". On a fully diluted basis, General Electric would own approximately 4.5% of the common stock of the Company.

## BANK LOANS

## LOAN AGREEMENT:

In March 1997, the Company entered into a \$10.0 million loan agreement with First Union National Bank (the "Loan Agreement") that had an interest rate of Prime plus 50 basis points (8.75% at September 30, 1998). As of September 30, 1998 the Company had \$9,950,000 outstanding under this facility. As of September 30, 1999, there were no amounts outstanding under this facility (see below). The Loan Agreement contains financial covenants which, among other things, require maintenance of certain financial ratios, liquidity and net worth. As a result of the net loss for certain quarters in the years ended September 30, 1998 and 1999, the Company was not in compliance with the Loan Agreement's debt covenants. The Company received a waiver from the bank regarding this non-compliance. Subsequent to year-end 1999, the Company's Loan Agreement was extended through January 31, 2001. The Loan Agreement's financial covenants were modified under the third amendment, and management believes that the Company will be able to comply with such requirements throughout fiscal year 2000.

## 1998 AGREEMENT:

In June 1998, the Company entered into an \$8.0 million loan agreement with First Union National Bank (the "1998 Agreement") that had an interest rate equal to one-month LIBOR plus three-quarters of one percent per annum (6.4% at September 30, 1998). As of September 30, 1998, \$8.0 million was outstanding under the 1998 Agreement. As of September 30, 1999, there were no amounts outstanding under this facility (see below). The 1998 Agreement expired upon completion of the public offering (see Note 11). The 1998 Agreement was guaranteed by both the Company's Chairman and Chief Executive Officer. In exchange for guaranteeing the facility, both the Chairman and the Chief Executive Officer were granted an aggregate of 284,684 common stock purchase warrants exercisable at \$11.375 per share until May 1, 2001. These warrants are callable at the Company's option at \$0.85 per warrant at such time as the Company's Common Stock has traded at or above 150% of the exercise price for a period of thirty days. The Company assigned a value of \$1,310,000 to the warrants issued to the guarantors. This valuation was based upon the Company's application of Black-Scholes. This value was accounted for as debt issuance cost and was completely amortized by September 30, 1999. See extraordinary item described below.

In June 1999, the Company completed the issuance of an additional 3.0 million common stock shares through a public offering, which resulted in proceeds of \$52.0 million, net of issuance costs. A portion of the proceeds was used to repay all outstanding bank loans.

## SUBORDINATED NOTES:

In May 1996, the Company issued subordinated notes (the "Subordinated Notes") in the amount of \$9,500,000 to its existing shareholders, \$1,000,000 of which were exchanged for notes receivable from officers and certain employees with identical payment and interest provisions. The Subordinated Notes are scheduled to mature on May 1, 2001, and have a stated interest rate of 6.0% which is payable semi-annually on May 1 and November 1. In addition, the noteholders were issued 2,328,432 common stock purchase warrants with an exercise price of \$4.08 per share which expire on May 1, 2001. The warrants are exercisable after November 1, 1996, and are callable at the Company's option, after May 1, 1997, at \$0.85 per warrant. The Company has the legal right of offset with respect to the notes receivable from officers and certain key employees, and it is their full intention to offset the corresponding notes receivable and payable upon maturity. As such, the Company reflected \$848,000 of the officers' and employees' notes receivable as a contra liability, reducing the Company's Subordinated Notes balance. The remaining \$152,000 note receivable has been reflected as a contra equity note receivable balance, representing the portion of the employee note receivable associated with common stock purchase warrants issued to such employees. The Company received cash proceeds of \$8,500,000 in connection with this Subordinated Notes issuance.

In September 1996, the Company issued a subordinated note in the amount of \$2,500,000 to the Company's then majority shareholder with terms identical to the Subordinated Notes issued on May 1, 1996. In addition, under the terms of this issuance, 245,098 common stock purchase warrants were issued to purchase common stock at \$10.20 per share and which expire September 1, 2001. These warrants are exercisable after March 1, 1997, and are callable at the Company's option after September 1, 1997, at \$0.85 per warrant. The Company assigned a value of \$1,440,000 to the May 1, 1996 detachable warrants and \$900,000 to the September 1, 1996 detachable warrants. These valuations were based upon the Company's application of Black-Scholes and the Company's assessment of the underlying valuation factors, as well as an assessment of the terms of the Subordinated Notes. The carrying value of the Subordinated Notes will be subject to periodic accretions, using the interest method, in order for the carrying amount to equal the Company's obligation upon maturity. As a result, the May 1, 1996 and September 1, 1996 Subordinated Notes have an effective interest rate of approximately 9.3% and 15.0%, respectively. For the years ended September 30, 1997, 1998 and 1999, imputed warrant interest related to the Subordinated Notes amounted to \$388,000, \$370,000 and \$293,000, respectively.

In June 1999, a portion of the proceeds from the public offering was used to repay all outstanding subordinated notes. The difference between the carrying value of the subordinated notes and the face value was recorded as an extraordinary loss, as noted below.

## DEMAND NOTE FACILITIES:

On September 17, 1998, the Company borrowed \$7.0 million from its Chairman at an interest rate of Prime plus 200 basis points (10.25% as of September 30, 1998), per annum. In addition, on October 23, 1998 the Company borrowed an additional \$1.5 million from its Chairman on identical terms. The entire sum of \$8.5 million borrowed plus interest was repaid from the proceeds of the Private Placement (see Note 11). The demand note facility expired upon completion of the public offering (see Note 11)

## EXTRAORDINARY ITEMS:

On June 15, 1999, the Company repaid its outstanding bank loans using a portion of the proceeds from the public offering. The Company also used a portion of the net proceeds to repurchase its outstanding 6.0% subordinated notes due 2001. The early extinguishment of debt resulted in an extraordinary charge of \$1.3 million or \$0.13 per share in fiscal year 1999 that consisted of the following:

(in thousands)

## EXTRAORDINARY ITEMS:

Discount on prepayment of 6% subordinated notes due 2001.....	\$ 867
Write-off of deferred financing costs.....	467
	-----
Net extraordinary loss	\$1,334
	=====

On October 25, 1996, the Company entered into a \$10.0 million demand note facility (the "Facility"). The Facility bore interest at the rate of LIBOR plus 75 basis points, had a term of one year and was due and payable on demand. The Facility was guaranteed by the Chairman of the Company's Board of Directors who provided collateral for the Facility. In December 1996, in return for guaranteeing the facility, the Company granted the Chairman 980,392 common stock purchase warrants at \$10.20 per share which expire September 1, 2001. These warrants are exercisable after July 1, 1997, and are callable at the Company's option after December 1, 1997 at \$0.85 per warrant. The Facility was terminated in conjunction with the Company's initial public offering.

The Company assigned a value of \$3,600,000 to the warrants issued to the guarantor. This valuation was based upon the Company's application of Black-Scholes. This value was accounted for as debt issuance cost and was amortized over the expected period that the facility was to be in place (four months). The Company utilized a portion of the proceeds from its initial public offering to pay down or discharge certain of its debts. The Company repaid the entire \$8.0 million outstanding under its October 1996 Facility and \$2.0 million was used to repay a portion of the Company's outstanding subordinated notes, due May 1, 2001. In connection with the discharge of the Company's subordinated notes, an extraordinary loss of \$286,000 was recognized in fiscal year 1997.

#### NOTE 9. COMMITMENTS AND CONTINGENCIES

On November 16, 1992, the Company entered into a three-year lease agreement with a bank for 34,000 square feet of space in the building the Company presently occupies. On March 31, 1995, the agreement was renewed for 5 years for 49,000 square feet. In November 1996, the Company signed an agreement to occupy the remaining 26,000 square feet that it previously had not occupied. In May 1999, the agreement was renewed for another 5 years.

The Company leases certain equipment under non-cancelable operating leases.

Facility and equipment rent expense under such leases amounted to approximately \$548,000, \$637,000 and \$761,000 for the years ended September 30, 1997, 1998 and 1999, respectively.

Future minimum rental payments under the Company's non-cancelable operating leases with an initial or remaining term of one year or more as of September 30, 1999 are as follows:

(in thousands) PERIOD ENDING:	Operating
-----	-----
September 30, 2000	\$448
September 30, 2001	129
September 30, 2002	55
September 30, 2003	7
September 30, 2004	--
	----
Total minimum lease payments	\$639
	----

In January 1999, Rockwell settled litigation that challenged the validity of certain patents which EMCORE licensed from Rockwell prior to the commencement of the litigation. As a result of this settlement, EMCORE will be required to pay Rockwell a royalty including interest under our license agreement relating to TurboDisc(TM) tools. EMCORE believes it has adequately accrued for these royalties. In addition, prior to the commencement of the litigation, EMCORE had initiated discussions with Rockwell to receive additional licenses to permit EMCORE to use the technology to manufacture and sell wafers and devices. EMCORE may be required to pay royalties to Rockwell for certain past sales of wafers and devices to customers who do not hold licenses directly from Rockwell. Management has reviewed and reassessed the royalty agreements and concluded that it has the appropriate amounts reserved for at both September 30, 1998 and 1999. We are currently negotiating with Rockwell to obtain the necessary licenses to continue to manufacture and sell wafers and devices. The Rockwell patent expires in January 2000. The failure to obtain licenses to manufacture these wafers and devices on commercially reasonable terms may materially and adversely affect our business, financial condition and results of operations through January 2000.

The Company is from time to time involved in litigation incidental to the conduct of its business. Management and its counsel believe that such pending litigation will not have a material adverse effect on the Company's results of operations, cash flows or financial condition.

## NOTE 10. INCOME TAXES

Income tax expense consists of the following:

(IN THOUSANDS)	For the years ended September 30,		
	1997	1998	1999
Current:			
Federal	\$ 113	\$ --	\$ --
State	24	--	--
	-----	-----	-----
	137	--	--
Deferred:			
Federal	--	--	--
State	--	--	--
	-----	-----	-----
Total	\$ 137	\$ --	\$ --
	-----	-----	-----

The principal differences between the U.S. statutory and effective income tax rates were as follows:

	For the years ended September 30,		
	1997	1998	1999
US statutory income tax (benefit) expense rate	(34.0)%	(34.0)%	(34.0)%
State rate, net of federal benefit	(5.9)%	(5.9)%	(5.9)%
Acquired in-process research and development	--	18.2%	--
Change in valuation allowance	37.7%	19.8%	35.0%
Non-deductible amortization	--	3.4%	4.8%
Other	4.7%	(1.5)%	0.1%
	-----	-----	-----
Effective tax rate	2.5%	--	--
	=====	=====	=====

The components of the Company's net deferred taxes were as follows:

(in thousands)	For the years ended September 30,	
	1998	1999
Deferred tax assets:		
Federal net operating loss carryforwards	\$ 7,943	\$ 11,800
Research credit carryforwards (state and federal)	1,479	1,554
Inventory reserves	248	133
Accounts receivable reserves	240	191
Fixed assets	--	2,325
Interest	1,657	386
Accrued installation reserve	164	146
Accrued warranty reserve	76	157
State net operating loss carryforwards	1,494	1,336
Other	238	569
Valuation reserve - federal	(9,438)	(15,430)
Valuation reserve - state	(3,751)	(2,936)
	-----	-----
Total deferred tax assets	350	231
Deferred tax liabilities:		
Fixed assets and intangibles	(350)	(231)
	-----	-----
Total deferred tax liabilities	(350)	(231)
	-----	-----
Net deferred taxes	\$ --	\$ --
	-----	-----

The Company has established a valuation reserve as it has not determined that it is more likely than not that the net deferred tax asset is realizable, based upon the Company's past earnings history.



As of September 30, 1999, the Company has net operating loss carryforwards for tax purposes of approximately \$24.0 million that expire in the years 2003 through 2019. The Company believes that the consummation of certain equity transactions and a significant change in the ownership during fiscal years 1995, 1998 and 1999 have constituted a change in control under Section 382 of the Internal Revenue Code ("IRC"). Due to the change in control, the Company's ability to use its federal net operating loss carryovers and federal research credit carryovers to offset future income and income taxes, respectively, are subject to annual limitations under IRC Sections 382 and 383.

The Company believes that the acquisition of MODE and the consummation of certain other equity transactions has constituted a change in control in fiscal 1998 under Section 382 of the IRC. As such, Federal net operating loss carryovers and research credit carryovers incurred subsequent to the Company's fiscal 1995 change in control (as described above) will also be subject to annual limitations under IRC Sections 382 and 383.

#### NOTE 11. STOCKHOLDERS' EQUITY

**REVERSE STOCK SPLIT.** On February 3, 1997, the Board of Directors approved a 3.4:1 reverse stock split of its common stock and approved a decrease in the number of shares of common stock authorized. All references in the accompanying financial statements to the number of common stock and per-share amounts have been restated to reflect the reverse split.

**COMMON STOCK OFFERING.** On March 6, 1997, the Company completed an initial public offering of 2,500,000 shares of common stock at a price of \$9.00 per share (the "Offering"), and upon the exercise of the Underwriter's overallotment option, 375,000 additional shares of common stock were also sold at \$9.00 per share. The proceeds, net of commissions and certain expenses, to the Company from the offering were approximately \$22.8 million. Prior to the Offering, there was no public market for the Company's common stock.

**PUBLIC OFFERING.** On June 15, 1999, the Company completed the issuance of an additional 3.0 million common stock shares through a public offering, which resulted in proceeds of \$52.0 million, net of issuance costs of \$5.0 million. A portion of the proceeds was used to repay all outstanding bank indebtedness and subordinated notes.

**PREFERRED STOCK.** The Company's certificate of incorporation authorizes the Board of Directors to issue up to 5,882,353 shares of preferred stock of the Company upon such terms and conditions having such rights, privileges and preferences as the Board of Directors may determine.

**PRIVATE PLACEMENT OFFERING.** On November 30, 1998, the Company sold an aggregate of 1,550,000 shares of Series I Redeemable Convertible Preferred Stock ("the Series I Preferred Stock") for aggregate consideration of \$21.7 million before deducting costs and expenses, which amounted to approximately \$500,000. The Series I Preferred Stock was recorded net of issuance costs. The excess of the preference amount over the carrying value is being accreted by periodic charges to accumulated deficit. The shares of Series I Preferred Stock are convertible, at any time, at the option of the holders thereof, unless previously redeemed, into shares of common stock at an initial conversion price of \$14.00 per share of common stock, subject to adjustment in certain cases. The market price of the Company's common stock was \$12.875 on the date the Series I Preferred Stock was issued. The Series I Preferred Stock is redeemable, in whole or in part, at the option of the Company at any time the Company's stock has traded at or above \$28.00 per share for 30 consecutive trading days, at a price of \$14.00 per share, plus accrued and unpaid dividends, if any, to the redemption date. The Series I Preferred Stock carries a dividend of 2% per annum. Dividends are being charged to accumulated deficit. In addition, the Series I Preferred Stock is subject to mandatory redemption by the Company at \$14.00 per share plus accumulated and unpaid dividends, if any, on November 17, 2003. On June 15, 1999, 520,000 shares of Series I Redeemable Convertible Preferred Stock were converted to common stock.

## NOTE 12. STOCK OPTIONS AND WARRANTS

STOCK OPTION PLAN. In November 1994, the Company's Incentive Stock Option Plan, initiated in 1987, was eliminated. On June 5, 1995, the Company adopted the 1995 Incentive and Non-Statutory Stock Option Plan (the "Option Plan"). Under the terms of the Option Plan, options to acquire 323,529 shares of common stock may be granted to eligible employees, as defined, at no less than 100 percent of the fair market value on the date of grant. In March 1996, the ability to grant options to acquire an additional 323,530 shares of common stock was approved. In February 1997, the ability to grant options to acquire an additional 725,000 shares of common stock was approved. As of September 30, 1999, 82,578 stock options were available for issuance under the Company's Option Plan.

Certain options under the Option Plan are intended to qualify as incentive stock options pursuant to Section 422A of the Internal Revenue Code.

During fiscal 1999, options with respect to 330,795 shares were granted pursuant to the Company's option plan at exercise prices ranging from \$8.00 to \$26.50 per share.

Stock options granted generally vest over three to five years and are exercisable over a ten-year period. As of September 30, 1997, 1998 and 1999, options with respect to 199,368, 481,863 and 554,439 shares were exercisable, respectively.

The following table summarized the activity under the plan:

	SHARES	WEIGHTED AVERAGE EXERCISE PRICE
	-----	-----
Outstanding as of September 30, 1996	339,412	\$ 3.54
Granted	182,700	11.06
Exercised	(42,165)	3.17
Cancelled	(4,475)	3.08
	-----	-----
Outstanding as of September 30, 1997	475,472	\$ 6.47
Assumed in MODE acquisition	200,978	0.50
Granted	615,306	13.34
Exercised	(35,809)	2.33
Cancelled	(43,221)	10.22
	-----	-----
Outstanding as of September 30, 1998	1,212,726	\$ 8.95
Granted	330,795	13.74
Exercised	(110,072)	3.41
Cancelled	(127,436)	9.33
	-----	-----
Outstanding as of September 30, 1999	1,306,013	\$10.59
	-----	-----

At September 30, 1999, stock options outstanding were as follows:

Exercise Prices	Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Exercisable Options	Weighted Average Exercise Price
-----	-----	-----	-----	-----
less than or equal to \$5	298,875	6.70	269,806	\$ 2.18
less than \$5 to less than or equal to \$10	39,300	8.96	3,860	9.38
less than \$10 to less than or equal to \$15	830,118	8.53	257,129	12.39
less than \$15 to less than or equal to \$20	76,220	8.42	11,644	18.02
greater than \$20	61,500	8.79	12,000	21.92

In connection with the Company's acquisition of MODE, it assumed 200,978 common stock purchase options with exercise prices ranging from \$0.43 to \$0.60. The MODE options have a term of 10 years from the date of grant, with such options expiring at various dates through July 31, 2007. The options vest, with continued service, over a four-year period; 25% in year one and 75% equally over the remaining 36 months.

The following table summarizes the activity of options assumed in the MODE acquisition:

	SHARES	WEIGHTED AVERAGE EXERCISE PRICE
	-----	-----
Outstanding as of September 30, 1997	--	--
Options assumed at the date of acquisition	200,978	\$0.50
Exercised	(15,890)	0.51
Cancelled	(7,764)	0.56
	-----	-----
Outstanding as of September 30, 1998	177,324	0.50
Granted	--	--
Exercised	(52,799)	0.54
Cancelled	(28,029)	0.56
	-----	-----
Outstanding as of September 30, 1999	96,496	0.46
	=====	=====

In October 1995, the Financial Accounting Standards Board issued SFAS No. 123, "ACCOUNTING FOR STOCK BASED COMPENSATION" ("SFAS 123"). SFAS 123 establishes financial and reporting standards for stock based compensation plans. The Company has adopted the disclosure only provisions of this standard and has elected to continue to apply the provision of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees". Had the Company elected to recognize compensation expense for stock options based on the fair value at the grant dates of awards, net loss and net loss per share would have been as follows:

(in thousands)	FOR THE FISCAL YEARS ENDED SEPTEMBER 30,		
	1997	1998	1999
	-----	-----	-----
Loss before extraordinary item			
As reported	\$5,334	\$36,419	\$21,354
Pro forma	5,441	37,038	22,648
Loss per basic and diluted share before extraordinary item			
As reported	\$(1.14)	\$(4.15)	\$(2.05)
Pro forma	\$(1.17)	\$(4.22)	\$(2.17)
Net loss			
As reported	\$5,619	\$36,419	\$22,689
Pro forma	\$5,727	\$37,038	\$23,983
Net loss per basic and diluted share			
As reported	\$(1.20)	\$(4.15)	\$(2.18)
Pro forma	\$(1.23)	\$(4.22)	\$(2.30)

The weighted average fair value of the Company's stock options was calculated using Black-Scholes with the following weighted-average assumptions used for grants: no dividend yield; expected volatility of 0% prior to the Company's initial public offering, 60% for fiscal years 1997 and 1998 and 76% for fiscal year 1999; a risk-free interest rate of 6.0%, 5.6% and 5.8% for fiscal years 1997, 1998 and 1999, respectively; and expected lives of 5 years. The weighted average fair value of options granted during the years ended September 30, 1997, 1998 and 1999 was \$3.82, \$7.50 and \$9.05 per share, respectively. Stock options granted by the Company prior to its initial public offering were valued using the minimum value method under FASB No. 123.

#### WARRANTS.

WARRANT EXERCISE. On December 3, 1997, the holders of 1.8 million common stock purchase warrants (with an exercise price of \$4.08) exercised such warrants with the Company taking full recourse notes amounting to approximately \$7.5 million in exchange for the issued common stock. The notes receivable mature and are payable in full on May 1, 2001 and have an interest rate of 6%, compounding semi-annually. In addition, the holders are required to provide collateral at a 2:1 coverage ratio. The Company presently holds this collateral.

Set forth below is a summary of the Company's outstanding warrants at September 30, 1999:

Underlying Security -----	Exercise Price -----	Warrants -----	Expiration Date -----
Common Stock (1)	\$4.08	249,990	May 1, 2001
Common Stock (2)	\$4.33	36,990	August 21, 2006
Common Stock (2)	\$5.92	10,128	May 16, 2007
Common Stock (3)	\$10.20	1,039,460	September 1, 2001
Common Stock (4)	\$11.38	284,684	May 1, 2001
Common Stock (5)	\$22.88	282,010	May 26, 2006
		-----	
		1,903,262	

- (1) issued in connection with EMCORE's May 1996 subordinated note issuance.
- (2) issued in connection with EMCORE's December 1997 acquisition of MicroOptical Devices, Inc.
- (3) issued in connection with EMCORE's September 1996 subordinated debt issuance and October 1996 debt guarantee.
- (4) issued in connection with EMCORE's June 1998 bank loan agreement.
- (5) issued in connection with EMCORE's May 1999 formation of the joint venture with GEL.

#### NOTE 13. RELATED PARTIES

In fiscal year 1997, the Company entered into a \$5.0 million non-exclusive and non-refundable technology licensing and royalty agreement with Uniroyal Technology Corporation ("UTC") for the process technology to develop and manufacture high brightness light emitting diodes ("HB LEDs"). During fiscal years 1997 and 1998, revenue associated with the UTC licensing agreement amounted to \$2.5 million annually. At the time the transaction was originally entered into, UTC's Chairman and CEO was a member of EMCORE's Board of Directors and EMCORE's Chairman was on the Board of Directors of UTC.

In December 1997, the Company and a wholly owned subsidiary of Uniroyal Technology Corporation formed Uniroyal Optoelectronics LLC, a joint venture, to manufacture, sell and distribute High Brightness (HB) LED wafers and package-ready devices (see Note 4). During the fiscal year ended September 30, 1999, EMCORE sold three compound semiconductor production systems to the venture totaling \$5.3 million in revenues. EMCORE deferred gross profit of approximately \$1.3 million on such sales to the extent of its minority interest. Such deferred gross profit will be recognized ratably over the assigned life of the production systems purchased by the joint venture. As of September 30, 1999, the Company had an outstanding related party receivable of \$1.8 million.

In May 1999, EMCORE and General Electric Lighting formed GELcore, a joint venture to develop and market HB LED lighting products. As of September 30, 1999, the Company had an outstanding related party receivable of \$673,000.

The President of Hakuto Co. Ltd. ("Hakuto"), the Company's Asian distributor, is a member of the Company's Board of Directors and Hakuto is a minority shareholder of the Company. During the years ended September 30, 1998 and 1999, sales made through Hakuto approximated \$9.2 million and \$10.2 million respectively.

On June 22, 1998, the Company entered into a bank loan agreement, which was guaranteed by the Chairman and the Chief Executive Officer of the Company (see Note 8).

On September 17, 1998, the Company borrowed \$7.0 million from its Chairman, Thomas J. Russell at an interest rate of 9.75% per annum. In addition, on October 23, 1998 the Company borrowed an additional \$1.5 million from its Chairman on identical terms. The entire \$8.5 million, borrowed from Mr. Russell was repaid from the proceeds of a private placement (See Note 8).

## NOTE 14. SEGMENT DATA AND RELATED INFORMATION

EMCORE has two reportable operating segments: the systems-related business unit and the materials-related business unit. The systems-related business unit designs, develops and manufactures tools and manufacturing processes used to fabricate compound semiconductor wafer and devices. Revenues for the systems-related business unit consists of sales of EMCORE's Turbodisc(TM) production systems as well as spare parts and services. Our systems-related business unit assists our customers with device design, process development and optimal configuration of TurboDisc(TM) production systems. The materials-related business unit designs, develops and manufactures compound semiconductor materials. Revenues for the materials-related business unit include sales of semiconductor wafers, devices and process development technology. EMCORE's vertically-integrated product offering allows it to provide a complete compound semiconductor solution to its customers.

The segments reported below are the segments of the Company for which separate financial information is available and for which gross profit amounts are evaluated regularly by executive management in deciding how to allocate resources and in assessing performance. The accounting policies of the operating segments are the same as those described in the summary of accounting policies (see Note 2). The Company does not allocate assets or operating expenses to the individual operating segments. There are no intercompany sales transactions between the two operating segments.

The Company's reportable operating segments are business units that offer different products. The reportable segments are each managed separately because they manufacture and distribute distinct products and services.

Information about reported segment gross profit is as follows:

(in thousands)	1997	1998	1999
	-----	-----	-----
Revenues:			
Systems-related.....	\$34,091	\$26,324	\$44,477
Materials-related.....	13,661	17,436	13,864
	-----	-----	-----
Total revenues.....	47,752	43,760	58,341
Cost of sales:			
Systems-related.....	24,250	15,942	26,522
Materials-related.....	5,844	8,734	6,636
	-----	-----	-----
Total cost of sales.....	30,094	24,676	33,158
Gross profit:			
Systems-related.....	9,841	10,382	17,955
Materials-related.....	7,817	8,702	7,228
	-----	-----	-----
Total gross profit.....	\$17,658	\$19,084	\$25,183
Gross margin:			
Systems-related.....	28.9%	39.4%	40.4%
Materials-related.....	57.2%	49.9%	52.1%
	-----	-----	-----
Total gross margin.....	37.0%	43.6%	43.2%
	-----	-----	-----

The Company sells its compound semiconductor products domestically and internationally. The Company's international sales are generally made under letter of credit arrangements. The following chart contains a breakdown of EMCORE's worldwide sales to customers and percentages by geographic region. Historically, EMCORE has received all payments for products and services in U.S. dollars.

(in thousands)

Region	For the fiscal years ended September 30,					
	1997		1998		1999	
	Revenues	%	Revenues	%	Revenues	%
North America	\$27,690	58%	\$26,648	61%	\$27,698	48%
Asia	14,584	31%	15,527	35%	28,211	48%
Europe	5,478	11%	1,585	4%	2,432	4%
Total	\$47,752	100%	\$43,760	100%	\$58,341	100%

All long-lived assets are located in the North America region. Significant sales in the Asia region are predominately made in Japan and Taiwan. Sales to customers that accounted for at least 10% of total EMCORE revenues are outlined below. In fiscal year 1999, no individual customer had sales equal to or in excess of 10% of total fiscal year 1999 revenues.

(in thousands)

For the fiscal years ended September 30,

	1997	1998
	-----	-----
Customer A	\$ 4,873	\$ 7,583
Customer B	7,159	5,602
Total	\$12,032	\$13,185
	=====	=====

## NOTE 15. QUARTERLY FINANCIAL DATA (UNAUDITED)

(in thousands except per share data)

	Revenues	Operating Income (Loss)	Net Income Net Income (Loss)	Net Income (Loss) Per Share
	-----	-----	-----	-----
Fiscal Year 1997:				
December 31, 1996	\$ 8,591	\$(2,585)	\$ (3,798)	\$ (0.86)
March 31, 1997	12,929	147	(3,150)	(0.82)
June 30, 1997	14,106	907	830	0.10
September 30, 1997	12,126	841	498	0.06
Fiscal Year 1998:				
December 31, 1997	\$12,357	\$(19,717)*	\$(19,883)*	\$(2.81)*
March 31, 1998	13,808	(615)	(778)	(0.08)
June 30, 1998	9,074	(7,955)	(8,260)	(0.88)
September 30, 1998	8,521	(6,359)	(7,498)	(0.80)
Fiscal Year 1999:				
December 31, 1998	\$10,125	\$(6,058)	\$(6,880)	\$(0.74)
March 31, 1999	16,072	(1,802)	(3,977)	(0.44)
June 30, 1999	17,667	(1,893)	(5,238)	(0.53)
September 30, 1999	14,477	(4,603)	(6,594)	(0.50)

\* includes \$19.5 million one-time acquired in-process, non-cash research and development.

## NOTE 16. EMPLOYEE SAVINGS PLAN

The Company has a savings plan (the "Savings Plan") that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the Savings Plan, participating employees may defer a portion of their pretax earnings, up to the Internal Revenue Service annual contribution limit. Effective August 1, 1997, the Company began contributing to the Savings Plan. All employer contributions are made in the Company's common stock. For the years ended September 30, 1998 and 1999, the Company contributed approximately \$252,000 and \$376,000, respectively to the Savings Plan.

## INDEPENDENT AUDITORS' REPORT

To the Board of Directors and  
Shareholders of EMCORE Corporation  
Somerset, New Jersey

We have audited the accompanying consolidated balance sheets of EMCORE Corporation (the "Company") as of September 30, 1999 and 1998, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended September 30, 1999. Our audits also included the financial statement schedule listed in the Index at Item 14(a)(2). These financial statements and the financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements and financial statement schedule based on our audits.

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

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of EMCORE Corporation as of September 30, 1999 and 1998, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 1999 in conformity with generally accepted accounting principles. Also, in our opinion, such 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.

DELOITTE & TOUCHE LLP

Parsippany, New Jersey  
January 10, 2000



## STATEMENT OF MANAGEMENT RESPONSIBILITY FOR FINANCIAL STATEMENTS

To the Shareholders of  
EMCORE Corporation:

Management has prepared and is responsible for the consolidated financial statements and related information in the Annual Report. The financial statements, which include amounts based on judgment, have been prepared in conformity with generally accepted accounting principles consistently applied.

Management has developed, and continues to strengthen, a system of internal accounting and other controls for the Company. Management believes these controls provide reasonable assurance that assets are safeguarded from loss or unauthorized use and that the Company's financial records are a reliable basis for preparing the financial statements. Underlying the concept of reasonable assurance is the premise that the cost of control should not exceed the benefit derived.

The Board of Directors, through its audit committee, is responsible for reviewing and monitoring the Company's financial reporting and accounting practices. The audit committee meets regularly with management and independent accountants - both separately and together. The independent accountants have free access to the audit committee to review the results of their audits, the adequacy of internal accounting controls and the quality of financial reporting.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

PricewaterhouseCoopers LLP ("PwC") and one of its predecessors, Coopers & Lybrand L.L.P., have served as the Company's independent public accountants since 1986. On May 13, 1999 the staff of the Securities and Exchange Commission (the "SEC") advised EMCORE that, in its view, because several current and former Price Waterhouse LLP partners owned shares of EMCORE's common stock, PwC had violated the independence standards promulgated by the SEC. The SEC staff required that EMCORE change auditors and have a new accounting firm reaudit its fiscal 1998 financial statements as a result of such violations by PwC.

In connection with the foregoing, on May 13, 1999, EMCORE engaged Deloitte & Touche LLP as its independent public accountants to reaudit EMCORE's financial statements for fiscal year 1998 and dismissed PwC as EMCORE's independent public accountant for fiscal year 1998. Both of these decisions were approved by the audit committee of our Board of Directors.

PwC's report on EMCORE's financial statements for the fiscal years 1997 and 1998 did not contain an adverse opinion or a disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope, or accounting principles. In addition, through May 13, 1998, there were no disagreements with PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of PwC, would have caused PwC to make reference to the subject matter of the disagreement in connection with its report.

During the Company's two most recent fiscal years and through May 13, 1999, there have been no reportable events, as defined in Regulation S-K Item 304(a)(1)(v).

Prior to formally being appointed as auditors on May 13, 1999, Deloitte & Touche LLP performed certain audit-related work at the request of the Company as a precaution in the event the SEC staff required the Company to change accountants.

Despite providing its consent to the inclusion of its auditor's report for the Company's financial statements for the fiscal year ended September 30, 1997 on ten separate occasions in the past, following several requests by the Company, PwC refused to provide its consent to the inclusion of its auditor's report for the Company's financial statements for the fiscal year ended September 30, 1997 in the Company's Form 10-K filing. As a result of PwC's refusal, the auditor's report for the Company's financial statements for the fiscal year ended September 30, 1997 was not included therein. PwC's auditor's report for the financial statements for the fiscal year ended September 30, 1997 was most recently included in the Company's 1998 Form 10-K/A filed on May 17, 1999 and the Company's Form S-3/A filed on October 6, 1999.

The Company believes that PwC has refused to provide its report and written consent solely in retaliation for a lawsuit that the Company recently filed against PwC in connection with PwC's violation of the independence standards promulgated by the SEC discussed above.

PwC's report on the Company's financial statements for the fiscal year ended September 30, 1997 did not contain an adverse opinion or a disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope, or accounting principles. There is no assurance that PwC would reissue its auditor's report for the Company's financial statements for the fiscal year ended September 30, 1997 in its original form and without qualification. The Company is not aware of any subsequent events, transactions or other matters that may have affected the previous report. As a result of PwC's refusal, the Company engaged Deloitte & Touche LLP to reaudit the Company's financial statements for the fiscal year ended September 30, 1997. A copy of Deloitte & Touche LLP's auditor's report for the Company's financial statements for the fiscal year ended September 30, 1997 appears in this Form 10-K/A.

## PART III

## ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information required by this item is incorporated herein by reference to EMCORE's 1999 Proxy Statement, which will be filed on or before January 28, 2000.

## ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated herein by reference to EMCORE's 1999 Proxy Statement, which will be filed on or before January 28, 2000.

## ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this item is incorporated herein by reference to EMCORE's 1999 Proxy Statement, which will be filed on or before January 28, 2000.

## ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this term is incorporated herein by reference to EMCORE's 1999 Proxy Statement, which will be filed on or before January 28, 2000.

## PART IV

## ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K.

	PAGE REFERENCE -----
14(a)(1) FINANCIAL STATEMENTS:	
Included in Part II, Item 8 of this report:	
Consolidated Balance Sheets as of September 30, 1998 and 1999	31
Consolidated Statements of Operations for the years ended September 30, 1997, 1998 and 1999	32
Consolidated Statements of Shareholders' Equity for the years ended September 30, 1997, 1998 and 1999	33
Consolidated Statements of Cash Flows for the years ended September 30, 1997, 1998 and 1999	34-35
Notes to financial statements	36-54
Report of independent accountants	55
14(a)(2) FINANCIAL STATEMENT SCHEDULE:	
Included in Part IV of this report:	
Schedule II - Valuation and qualifying accounts and reserves	63

Other schedules have been omitted since they are either not required or not applicable.

EXHIBIT NO.	DESCRIPTION
3.1	Restated Certificate of Incorporation, dated March 31, 1999.+
3.2	Amended By-Laws, as amended January 11, 1989 (incorporated by reference to Exhibit 3.2 to Amendment No. 1 to the 1997 S-1).
4.1	Specimen certificate for shares of common stock (incorporated by reference to Exhibit 4.1 to Amendment No. 3 to the 1997 S-1).
4.2	Form of \$11.375 Warrant (incorporated by reference to Exhibit 4.2 to EMCORE's filing on Form 10-K, dated December 29, 1998).
10.1	1995 Incentive and Non-Statutory Stock Option Plan (incorporated by reference to Exhibit 10.1 to Amendment No. 1 to the 1997 S-1).
10.2	1996 Amendment to Option Plan (incorporated by reference to Exhibit 10.2 to Amendment No. 1 to the 1997 S-1).
10.3	Specimen Incentive Stock Option Agreement (incorporated by reference to Exhibit 10.3 to Amendment No. 1 to the 1997 S-1).
10.4	Second Amended and Restated Distribution Agreement dated as of March 31, 1998 between EMCORE and Hakuto (incorporated by reference to Exhibit 10.4 to EMCORE's filing on Form 10-K/A, dated May 17, 1999). Confidential Statement has been requested by EMCORE for portions of this document. Such portions are indicated by "[*]".
10.5	Amendment to Lease for premises at 394 Elizabeth Avenue, Somerset, New Jersey 08873 (incorporated by reference to Exhibit 10.5 to Amendment No. 1 to the 1997 S-1).
10.6	Registration Rights Agreement relating to September 1996 warrant issuance (incorporated by reference to Exhibit 10.6 to Amendment No. 1 to the 1997 S-1).
10.7	Registration Rights Agreement relating to December 1996 warrant issuance (incorporated by reference to Exhibit 10.7 to Amendment No. 1 to the 1997 S-1).
10.8	Form of 6% Subordinated Note Due May 1, 2001 (incorporated by reference to Exhibit 10.8 to Amendment No. 1 to the 1997 S-1).
10.9	Form of 6% Subordinated Note Due September 1, 2001 (incorporated by reference to Exhibit 10.9 to Amendment No. 1 to the 1997 S-1).
10.10	Form of \$4.08 Warrant (incorporated by reference to Exhibit 10.10 to Amendment No. 1 to the 1997 S-1).

## EXHIBIT INDEX - (CONTINUED)

EXHIBIT NO.	DESCRIPTION
10.11	Form of \$10.20 Warrant (incorporated by reference to Exhibit 10.12 to Amendment No. 1 to the 1997 S-1).
10.12	Consulting Agreement dated December 6, 1996 between EMCORE and Norman E. Schumaker (incorporated by reference to Exhibit 10.14 to Amendment No. 1 to the 1997 S-1).
10.13	Purchase Order issued to EMCORE by General Motors Corporation on November 17, 1996. (incorporated by reference to Exhibit 10.15 to Amendment No. 1 to the 1997 S-1). Confidential treatment has been requested by EMCORE with respect to portions of this document. Such portions are indicated by "[*]".
10.14	Acquisition Agreement, dated as of December 5, 1997, between EMCORE and MicroOptical Devices, Inc. (incorporated by reference to Exhibit 2 to EMCORE's filing on Form 8-K, dated December 22, 1997).
10.15	Purchase Agreement, dated November 30, 1998, by and between EMCORE, Hakuto UMI and UTC (incorporated by reference to Exhibit 10.15 to EMCORE's filing on Form 10-K, dated December 29, 1998).
10.16	Registration Rights Agreement, dated November 30, 1998 by and between EMCORE, Hakuto, UMI and UTC (incorporated by reference to Exhibit 10.16 to EMCORE's filing on Form 10-K, dated December 29, 1998).
10.17	Long Term Purchase Agreement dated November 24, 1998 by and between EMCORE and Space Systems/Loral, Inc. (incorporated by reference to Exhibit 10.17 to EMCORE's filing on Form 10-K/A, dated May 17, 1999). Confidential treatment has been requested by EMCORE for portions of this document. Such portions are indicated by "[*]".
10.18	Note Purchase Agreement dated as of May 26, 1999 by and between EMCORE and GE Capital Equity Investments, Inc. (incorporated by reference to Exhibit 10.18 to Amendment No. 2 to the 1998 S-3 filed on June 9, 1999).
10.19	Registration Rights Agreement dated as of May 26, 1999 by and between EMCORE and GE Capital Equity Investments, Inc. (incorporated by reference to Exhibit 10.19 to Amendment No. 2 to the 1998 S-3 filed on June 9, 1999).
10.20	\$22.875 Warrant issued to General Electric Company (incorporated by reference to Exhibit 10.20 to Amendment No. 2 to the 1998 S-3 filed on June 9, 1999).
10.21	Transaction Agreement dated January 20, 1999 between General Electric Company and EMCORE (incorporated by reference to Exhibit 10.1 to EMCORE's filing on Form 10-Q/A, dated May 17, 1999). Confidential treatment has been requested by EMCORE for portions of this document. Such portions are indicated by "[*]".
10.22	Third Amendment to Revolving Loan and Security Agreement, dated as of December 1, 1999 between EMCORE and First Union National Bank.+

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21 Subsidiaries of the registrant.+

23.1 Consent of Deloitte & Touche LLP.\*

27 Financial Data Schedule.+

- -----

\* Filed herewith

+ Filed previously

## SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Township of Somerset, State of New Jersey, on January 12, 2000.

## EMCORE CORPORATION

By: /s/ REUBEN F. RICHARDS, JR.

-----  
Name: Reuben F. Richards, Jr.

TITLE: PRESIDENT AND CHIEF EXECUTIVE OFFICER

Pursuant to the requirements of the Securities Exchange Act of 1934, this report on Form 10-K has been signed below by the following persons on behalf of EMCORE Corporation in the capacities indicated, on January 12, 2000.

SIGNATURE

TITLE

-----

-----

/s/ THOMAS J. RUSSELL Chairman of the Board and Director

-----

Thomas J. Russell

/s/ REUBEN F. RICHARDS, JR. President, Chief Executive Officer and Director  
(Principal Executive Officer)

-----

Reuben F. Richards, Jr.

/s/ THOMAS G. WERTHAN Vice President, Chief Financial Officer  
and Director (Principal Accounting and  
Financial Officer)

-----

Thomas G. Werthan

/s/ HOWARD W. BRODIE Vice President and Secretary

-----

Howard W. Brodie

/s/ RICHARD A. STALL Director

-----

Richard A. Stall

/s/ ROBERT LOUIS-DREYFUS Director

-----

Robert Louis-Dreyfus

/s/ HUGH H. FENWICK Director

-----

Hugh H. Fenwick

/s/ SHIGEO TAKAYAMA Director

-----

Shigeo Takayama

/s/ CHARLES T. SCOTT Director

-----

Charles T. Scott

/s/ JOHN HOGAN Director

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John Hogan

EMCORE CORPORATION  
VALUATION AND QUALIFYING ACCOUNTS AND RESERVES  
FOR THE YEARS ENDED SEPTEMBER 30, 1997, 1998 AND 1999

	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Write-offs (Deductions)	Balance at End of Period
	-----	-----	-----	-----
ALLOWANCE FOR DOUBTFUL ACCOUNTS				
-----				
For the year ended September 30, 1997	\$310,000	\$ 515,000	\$ (128,000)	\$697,000
For the year ended September 30, 1998	697,000	1,118,000	(1,204,000)	611,000
For the year ended September 30, 1999	611,000	390,000	(438,000)	563,000
RESERVES FOR INVENTORY OBSOLESCENCE				
-----				
For the year ended September 30, 1997	\$220,000	\$ 120,000	\$ - -	\$340,000
For the year ended September 30, 1998	340,000	120,000	- -	460,000
For the year ended September 30, 1999	460,000	40,000	(110,000)	390,000



## INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in Registration Statement Nos. 333-27507, 333-36445, 333-39547 and 333-45827 of EMCORE Corporation on Form S-8 and Registration No. 333-87753 of EMCORE Corporation on Form S-3 of our report dated January 10, 2000 appearing in this Annual Report on Form 10-K/A of EMCORE Corporation for the year ended September 30, 1999.

DELOITTE & TOUCHE LLP

Parsippany, New Jersey  
January 12, 2000