Filed pursuant to Rule 424(b)(5)
Registration No. 333-94911

THE INFORMATION IN THIS PROSPECTUS SUPPLEMENT IS NOT COMPLETE AND MAY BE CHANGED. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED AND IS EFFECTIVE. THIS PROSPECTUS SUPPLEMENT IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION - FEBRUARY 16, 2000

PROSPECTUS SUPPLEMENT
(TO PROSPECTUS DATED FEBRUARY 4, 2000)

1,000,000 Shares

EMCORE logo

EMCORE CORPORATION

Common Stock

EMCORE Corporation is selling 1,000,000 shares of common stock. The shares of common stock are included for quotation on the Nasdaq National Market under the symbol "EMKR." On February 15, 2000, the last reported sale price in the Nasdaq National Market was $76.81 per share.

	Per Share	Total
Public offering price	$	$
Underwriting discounts and commissions	$	$
Proceeds, before expenses, to EMCORE	$	$

SEE "RISK FACTORS" ON PAGES 2 TO 8 OF THE ACCOMPANYING PROSPECTUS FOR FACTORS THAT SHOULD BE CONSIDERED BEFORE INVESTING IN THE SHARES OF EMCORE.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The underwriters may, under certain circumstances, purchase up to 150,000 additional shares from EMCORE at the public offering price, less underwriting discounts and commissions. Delivery and payment for the shares will be on , 2000.

PRUDENTIAL VOLPE TECHNOLOGY
a unit of Prudential Securities

WIT SOUNDVIEW

ROTH CAPITAL PARTNERS
Incorporated

February , 2000

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We were incorporated in the State of New Jersey in September 1986. Our World Wide Web site is www.emcore.com. Our web site is not part of this prospectus supplement. EMCORE and TurboDisc(R) are registered trademarks of EMCORE and Gigalese(R), Gigarray(R) and the EMCORE logo are trademarks of EMCORE. Each trademark, trade name or service mark of any other company appearing in this prospectus supplement belongs to its holder.

FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business. These forward-looking statements are subject to a number of risks, uncertainties and assumptions about us, including, among other things:

- general economic and business conditions, both nationally and in our markets;
- our expectations and estimates concerning future financial performance, financing plans and the effect of competition;
- anticipated trends in the compound semiconductor wafers and devices business;
- existing and future regulations affecting the compound semiconductor wafers and devices business; and
- other risk factors set forth in the "Risk Factors" section of the prospectus.

In addition, in this prospectus supplement and the accompanying prospectus, the words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect" and similar expressions, as they relate to us, our business or our management, are intended to identify forward-looking statements.

We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this prospectus supplement and the accompanying prospectus may not occur and actual results could differ materially from those anticipated or implied in the forward-looking statements.

You should rely only on the information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus supplement and the accompanying prospectus is accurate as of any other date than the date on the front cover of this prospectus supplement.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere in this prospectus supplement. This summary is not complete and may not contain all of the information that you should consider before investing in our common stock. You should read this prospectus supplement and the accompanying prospectus carefully.

EMCORE CORPORATION

EMCORE designs, develops and manufacturers compound semiconductor wafers and devices and is a leading developer and manufacturer of the tools and manufacturing processes used to fabricate compound semiconductor wafers and devices. Our production tools and process, and technology enable our customers to manufacture commercial volumes of high-performance electronic devices using compound semiconductors. Our products are used in a wide variety of applications in the communications (satellite, data, telecommunications and wireless), consumer and automotive electronics, computers and peripherals and lighting markets. EMCORE's customers include AMP Inc., General Motors Corp., Hewlett Packard Co., Hughes-Spectrolab, JDS Uniphase Corporation, Loral Space & Communications, Lucent Technologies, Inc., Siemens AG's Osram GmbH subsidiary, Sumitomo Electric Industries, Ltd. and 12 of the largest electronics manufacturers in Japan.

Compound semiconductors are the key components of electronic systems and electronic circuits and are used in today's most advanced information systems. 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, phosphorus or nitrogen. These elements are combined in our proprietary manufacturing process to create a round disk or wafer that has multiple layers of thin films of semiconductor materials on it. The wafers are further processed to create devices that are ready to be packaged by our customers for use in their products. Many compound semiconductor materials have unique physical properties that allow electrons to move at least four times faster than through semiconductors based on silicon. Advantages of compound semiconductor devices over silicon devices include:

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

Although compound semiconductors are more expensive to manufacture than the more traditional silicon-based semiconductors, electronics manufacturers are increasingly integrating semiconductors into their products in order to achieve higher performance.

We manufacture and sell, either alone or with our joint venture partners, the following products:

PRODUCT	CURRENT AND POTENTIAL APPLICATIONS
Solar cells	Solar panels in communications satellite power systems
Compound semiconductor devices that emit light, called high-brightness light-emitting diodes ("HB LEDs")*	Traffic lights Miniature lamps Automotive lighting Flat panel displays
Compound semiconductor lasers that emit light in a cylindrical beam, called vertical cavity surface emitting lasers ("VCSELs")	High performance data and telecommunications lines including fiber optic cables and other networking applications
Compound semiconductor sensor devices that can detect a magnetic field and sense the position of a metal object called magneto resistive sensors (MR sensors)	Cam and crank shaft sensors for automobiles Antilock brake systems Brushless motors Engine timing sensors
Compound semiconductor materials that transmit and receive communications called radio frequency materials (RF materials)	Cellular phone handsets Fiber optics Satellite transmitters and receivers
TurboDisc(R) production systems	Platform technology for all of the above

* Products under development

Our objective is to capitalize on our position as a leading developer and manufacturer of compound semiconductor tools and manufacturing processes to become the leading supplier of compound semiconductor wafers and devices. The key elements of our strategy are to:

- apply our core scientific and manufacturing technology across multiple product applications;
- target high growth opportunities;
- partner with key industry participants; and
- continue our investment in research and development to maintain technology leadership.

We have recently established a number of strategic relationships through joint ventures and long-term supply agreements including:

- a Memorandum of Understanding with JDS Uniphase Corporation for the development, manufacturing and marketing of a family of fiberoptic array transceivers;
- a three year supply agreement with Agilent Technologies, Inc. for VCSEL arrays;
- a joint venture with GE Lighting to develop and market white light and colored HB LED lighting products;
- a long-term purchase agreement for solar cells with Space Systems/Loral, a wholly-owned subsidiary of Loral Space & Communications; and
- a cooperative development agreement and a three-year purchase agreement with Sumitomo Electronic to provide certain RF materials for use in cellular handsets.

RECENT DEVELOPMENTS

In January 2000, we signed a Memorandum of Understanding with JDS Uniphase Corporation ("JDS Uniphase"). Under this Memorandum of Understanding, we and JDS Uniphase will, upon execution of a final agreement, jointly develop, manufacture and market a family of fiberoptic array transceivers based on our laser technology that facilitate light to logic (electronic signal in/modulated light signal out) for fiberoptic communications solutions used in switches, routers and computer backplanes. We will manufacture VSCEL arrays and design gigabit speed control circuits, photodetectors, optical links and other components. JDS Uniphase will design and develop the optical packaging for the products and handle all marketing and worldwide sales and distribution. We intend that the initial product jointly developed and commercialized in our alliance with JDS Uniphase will be an array transceiver with twelve channels each operating at 1.25 Gigabits/second, yielding a compact, high speed data link. These products are designed to make possible short distance links between dense wavelength division multiplexing systems (DWDM), high speed routers and SONET (long-haul telecommunications) equipment.

It is expected that JDS Uniphase will place an initial purchase order upon the signing of the agreement. The terms and conditions of delivery will be finalized upon completion of development of the product. We expect to begin shipments of an array transceiver by the second calendar quarter.

In January 2000, we entered into a three-year supply agreement with Agilent Technologies, Inc., a leading supplier of fiberoptic transceivers and integrated circuits for infrastructure products for the Internet. Under this agreement, we will manufacture Gigarray(R) VCSEL arrays for use in parallel optical transceivers. The initial purchase order under the agreement is contingent upon our development of a component that meets Agilent's specifications. We expect to begin shipping sample products in June 2000 with full commercial shipments commencing by year end.

THE OFFERING

Shares offered by EMCORE.....	1,000,000 shares
Shares outstanding after this offering.....	15,452,837 shares
Use of proceeds.....	To expand manufacturing capacity for new data communications and wireless products, to fund additional investments in joint ventures and for other general corporate purposes.
Nasdaq National Market symbol.....	EMKR

The outstanding share information set forth above is based on the number of shares outstanding as of December 31, 1999 and excludes:

(i) 4,188,176 shares of common stock reserved for issuance upon:

- the exercise of options outstanding which have a weighted average exercise price of $10.87 per share;
- the exercise of warrants which have a weighted average exercise price of $11.45 per share;
- the conversion of our convertible subordinated debenture held by General Electric; and

(ii) up to 150,000 additional shares that may be purchased if the underwriters exercise their over-allotment option in full.

RISK FACTORS

You should consider the risk factors described in the accompanying prospectus before investing in EMCORE's common stock.

USE OF PROCEEDS

We estimate our net proceeds from the offering to be $71.7 million (based on an assumed public offering price of $76.81 per share) after deducting the underwriting discounts and commissions and estimated offering expenses. We currently intend to use the net proceeds from the sale of our common stock to expand manufacturing capacity for new data communications and wireless products, to fund additional investments in joint ventures and for other general corporate purposes. Pending such uses, the net proceeds may temporarily be invested in short term, interest bearing, investment grade securities or guaranteed obligations of the U.S. Government.

PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY

EMCORE's common stock is included for quotation 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	$23.38	$15.50
Second Quarter	$19.63	$11.00
Third Quarter	$16.75	$ 9.00
Fourth Quarter	$13.50	$ 6.00
FISCAL YEAR ENDED SEPTEMBER 30, 1999:		
First Quarter	$18.38	$ 7.25
Second Quarter	$28.75	$13.88
Third Quarter	$23.00	$12.88
Fourth Quarter	$25.00	$11.25
FISCAL YEAR ENDED SEPTEMBER 30, 2000:		
First Quarter	$39.25	$12.06
Second Quarter (through February 15, 2000)	$76.81	$30.63

We have not declared or paid dividends on our common stock since we were formed. We currently do not intend to pay dividends on our common stock in the foreseeable future so that we may reinvest our earnings in our business. The payment of dividends, if any, on our common stock in the future will be at the discretion of our board of directors.

CAPITALIZATION

The following table sets forth our capitalization:

- on an actual basis as of December 31, 1999,
- on a pro forma basis, to reflect the conversion of preferred stock into common stock, and
- pro forma, as adjusted, to reflect our receipt of the estimated net proceeds from our sale of 1,000,000 shares of common stock.

	DECEMBER 31, 1999		
	ACTUAL	PRO FORMA(1)	PRO FORMA, AS ADJUSTED(1)
		(IN THOUSANDS)	
Long-term debt	$ 7,800	$ 7,800	$ 7,800
Commitments and contingencies:			
Mandatorily redeemable Series I convertible preferred stock, 657,143 shares issued and outstanding (redeemable at maturity for $9,200); none issued and outstanding pro forma and pro forma as adjusted	9,100	--	--
Shareholders' equity:			
Preferred stock, $0.0001 par, 5,882,353 shares authorized	--	--	--
Common stock, no par value, 50,000,000 shares authorized, 13,795,694 shares issued and outstanding; 14,452,837 shares pro-forma; and 15,452,837 shares pro forma as adjusted	158,023	167,123	238,827
Accumulated deficit	(90,017)	(90,017)	(90,017)
Notes receivable from warrant issuance and stock sales	(7,498)	(7,498)	(7,498)
Total shareholders' equity	60,508	69,608	141,312
Total shareholders' equity and mandatorily redeemable preferred stock	69,608	69,608	141,312
Total capitalization	$ 77,408	$ 77,408	$149,112

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(1) As of February 7, 2000 the Series I preferred stock were voluntarily converted into common stock.

The numbers in this table exclude (i) 4,188,176 shares of common stock reserved for issuance upon:

- the exercise of options which have a weighted average exercise price of $10.87 per share;
- the exercise of warrants which have a weighted average exercise price of $11.45 per share;
- the conversion of the convertible subordinated debenture held by General Electric; and

(ii) up to 150,000 additional shares that may be purchased if the underwriters exercise their over-allotment option in full.

DILUTION

Our net tangible book value as of December 31, 1999 was $53.6 million or approximately $3.88 per share. Net tangible book value per share represents the amount of total tangible assets less total liabilities, divided by the number of shares of common stock outstanding. Assuming the sale by us of 1,000,000 shares of common stock in this offering at the assumed public offering price of $76.81 per share, the application of the estimated net proceeds therefrom, and the conversion of preferred stock into common stock, our as adjusted net tangible book value as of December 31, 1999 would have been $134.4 million or approximately $8.70 per share. This represents an immediate increase in as adjusted net tangible book value of $4.82 per share to our existing shareholders and an immediate dilution in as adjusted net tangible book value of $68.11 per share to new investors. The following table sets forth this per share dilution.

Assumed public offering price		$76.81
Net tangible book value as of December 31, 1999	$3.88	
As adjusted increase in net tangible book value attributable to new investors	$4.82	
As adjusted net tangible book value after the Offering		$ 8.70
Dilution to new investors		$68.11

The foregoing table assumes no exercise of any outstanding stock options or warrants.

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 other financial information incorporated by reference into the prospectus. 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 which are incorporated by reference into the prospectus. The Statement of Operations 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. The selected financial data as of December 31, 1999 and for the three months ended December 31, 1998 and 1999 are derived from EMCORE's unaudited consolidated financial statements, which in the opinion of EMCORE's management, reflect all adjustments (consisting of only normal recurring adjustments) necessary for a fair presentation of the financial position and results of operations for these periods. Operating results for the three months ended December 31, 1999 are not necessarily indicative of the results that may be expected for the entire fiscal year ending September 30, 2000.

On December 5, 1997, EMCORE acquired MicroOptical Devices, Inc. ("MODE") in a stock transaction accounted for under the purchase method of accounting for $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.

	FISCAL YEARS ENDED SEPTEMBER 30,					QUARTER ENDED DECEMBER 31,	
	1995	1996	1997	1998	1999	1998	1999
	(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)						
STATEMENT OF OPERATIONS DATA:							
Revenue	$18,137	$27,779	$47,752	$ 43,760	$ 58,341	$ 10,125	$ 16,501
Cost of sales	9,927	18,607	30,094	24,676	33,158	6,016	9,778
Gross profit	8,210	9,172	17,658	19,084	25,183	4,109	6,723
Operating expenses:							
Selling, general and administrative	4,452	6,524	9,346	14,082	14,433	3,143	4,724
Goodwill amortization	--	--	--	3,638	4,393	1,099	1,098
Research and development:							
Recurring	1,852	5,401	9,001	16,495	20,713	5,924	4,708
One-time acquired in-process	--	--	--	19,516	--	--	--
Total operating expenses	6,304	11,925	18,347	53,731	39,539	10,166	10,530
Operating income (loss)	1,906	(2,753)	(689)	(34,647)	(14,356)	(6,057)	(3,807)
Stated interest expense (income), net .	265	297	520	973	866	230	(78)
Imputed warrant interest expense	--	126	3,988	601	1,136	316	163
Equity in net loss of unconsolidated affiliates	--	--	--	198	4,997	276	2,766
Total other expenses	265	423	4,508	1,772	6,999	822	2,851
Income (loss) before income taxes and extraordinary item	1,641	(3,176)	(5,197)	(36,419)	(21,355)	(6,879)	(6,658)
Provision for income taxes	125	--	137	--	--	--	--
Income (loss) before extraordinary item	1,516	(3,176)	(5,334)	(36,419)	(21,355)	(6,879)	(6,658)
Extraordinary item	--	--	285	--	1,334	--	--
Net income (loss)	$ 1,516	$(3,176)	$(5,619)	$(36,419)	$(22,689)	$ (6,879)	$ (6,658)
Income (loss) per basic and diluted shares before extraordinary item	$ 0.89	$ (1.06)	$ (1.14)	$ (4.15)	$ (2.05)	$ (0.74)	$ (0.49)
Net income (loss) per basic and diluted shares	$ 0.89	$ (1.06)	$ (1.20)	$ (4.15)	$ (2.18)	$ (0.74)	$ (0.49)
Weighted average shares used in calculating per share data	1,701	2,994	4,669	8,775	10,590	9,390	13,740

	AS OF SEPTEMBER 30,					AS OF DECEMBER 31,	
	1995	1996	1997	1998	1999	1998	1999
	(IN THOUSANDS)						
BALANCE SHEET DATA:							
Working capital (deficiency).....	$ 2,208	$ 1,151	$12,156	$ (2,017)	$ 20,690	$ 2,793	$ 16,318
Total assets.....	10,143	20,434	39,463	73,220	99,611	77,883	99,939
Long-term liabilities.....	3,000	8,947	7,577	26,514	9,038	25,019	9,018
Redeemable convertible preferred stock.....	--	--	--	--	14,193	21,242	9,100
Shareholders' equity.....	1,509	522	21,831	19,580	61,623	12,792	60,508

BUSINESS

COMPANY 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 production tools and process technology enable its customers 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. EMCORE's customers include Agilent, AMP Incorporated, General Motors Corp., Hewlett Packard Co., Hughes-Spectrolab, JDS Uniphase, Loral Space & Communications, Lucent Technologies, Inc., Motorola, Inc., Siemens AG's Osram GmbH subsidiary, Sumitomo Electric Industries, Ltd. 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:

- operation at higher speeds;
- lower power consumption;
- less noise and distortion; and
- 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:

- rapid build-out of satellite communications systems;
- widespread deployment of fiber optic networks and the increasing use of optical systems within these networks;
- launch of new wireless services and wireless high speed data systems;

- increasing use of infrared emitters and optical detectors in computer systems;

- emergence of advanced consumer electronics applications, such as DVDs and flat panel displays;

- increasing use of high-performance electronic devices in automobiles; and

- 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
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
Wireless communications	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
Telecommunications	High capacity fiber optic trunk lines	VCSEL components and arrays Lasers RF materials	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
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
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
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

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, none of these methods can be 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 increases, 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 a broad range of compound semiconductor products and services intended to meet its customers' diverse technology requirements. EMCORE has developed extensive materials science expertise, process technology and MOCVD production systems to address its customers' needs and believes that its proprietary TurboDisc(R) 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:

- materials and process development;

- design and development of devices;

- MOCVD production systems; and

- 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, and they can manufacture their own devices in-house using a TurboDisc(R) production system configured to their specific needs.

STRATEGY

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 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, better end-of-life performance 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 including through long-term, high-volume supply agreements, joint ventures, an acquisition and distribution and other arrangements. For example, EMCORE has 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 also has signed a Memorandum of Understanding with JDS Uniphase for the joint development, manufacture and marketing of a family of array transceivers for cost effective, high bandwidth optical networking products. 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 December 31, 1999. EMCORE believes that its TurboDisc(R) systems offer significant ownership advantages over competing systems and that the high throughput capabilities of its TurboDisc(R) 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(R) systems enable the lowest cost of ownership for the manufacture of compound semiconductor materials. The major components of 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(R) 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(R) 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(R) 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(R) 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 and incorporation in the customer's product.

(TurboDisc(R) Diagram)

Wafers are loaded on a multiple wafer platter into the growth chamber, where they are subjected to high-temperature vacuum conditions and spun at high speeds. Gases are then introduced into the vacuum growth chamber, and semiconductor materials become deposited onto the substrate in a highly uniform manner.

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

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

WAFERS AND DEVICES

Since its inception, EMCORE has worked closely with its customers to design and develop process technology and materials science expertise 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 power 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)
	Micro Optical Devices, Inc.	Acquisition	
	JDS Uniphase Corporation	Joint development manufacturing and marketing	
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 Long-term supply agreement	Digital wireless and cellular applications

Solar Cells. Compound semiconductor solar cells are used to power satellites because they are more resistant to radiation levels in space and convert substantially more light to power, 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:

- In November 1999, EMCORE entered into a Technical Assistance Agreement with Loral and Mitsubishi Electric Corporation;

- 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. To date, EMCORE has received purchase orders from Space Systems/Loral that total $7.2 million and will service this agreement through its 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 under the current purchase order are scheduled for the second fiscal quarter, which ends March 31, 2000;

- 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;

- 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 for 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; and

- 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 HB LEDs have a long useful life, 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. VCSELs offer significant advantages over traditional laser diodes, including:

- greater control over beam size and wavelength;

- reduced manufacturing complexity and packaging costs;

- lower power consumption; and

- higher frequency performance.

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.

In December 1997, EMCORE acquired 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 Incorporated 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(R), a VCSEL array. In January 2000, EMCORE signed a Memorandum of Understanding with JDS Uniphase for the joint development, manufacture and marketing of a family of array transceivers for the Very Short Reach OC-192 and related markets. Shipments are expected to begin by the second calendar quarter.

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 to anyone products using this technology. 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 five 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 higher 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 optic and satellite communications applications. 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. 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 will be used as power amplifiers in cellular phone handsets. Shipments of commercial product began in February 2000.

CUSTOMERS

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.

Agilent
AMP Incorporated
The Boeing Company
General Motors
Hewlett Packard
Honeywell
Hughes-Spectrolabe Hyundai Electronics
IBM
JDS Uniphase
LG Semiconductor
L.M. Ericcson AB
Loral Space & Communications
Lucent Technologies
Motorola
Northrop Grumman
Philips AG
Polaroid
Rockwell International
Samsung
Sharp U.S.A.
Siemens AG -- Osram
Sumitomo Electric Industries, Ltd.
Texas Instruments
Thomson CSF
Westinghouse Electric

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 December 31, 1999, EMCORE employed 17 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 a 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 expire in 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. On August 16, 1999, EMCORE entered into a two-year distribution agreement with DI Systems to market and service EMCORE's products in South Korea. EMCORE and Sumitomo Electric have a two and a half year distribution agreement, whereby Sumitomo Electric markets, distributes and services EMCORE's products in Japan. EMCORE recently opened sales offices in Taiwan and California in order to be closer to its customers. As of December 31, 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 that meet its customers' needs. 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 period 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 marketing, management and engineering support involved in this process is beneficial in developing competitive differentiation and long-term relationships with its customers.

SERVICE AND SUPPORT

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 customer's request. EMCORE also sells replacement parts from inventory to meet 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. Since fiscal 1998, EMCORE has operated 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(R) 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 $9.0 million in fiscal year 1997, $16.5 million in fiscal year 1998, $20.7 million in fiscal year 1999 and $4.7 million in the quarter ended December 31, 1999. EMCORE also incurred a one-time, non-cash research and development expense in fiscal year 1998 in the amount of $19.5 million in connection with the acquisition of MODE. EMCORE expects to 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 December 31, 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 for production systems, wafers and devices depend significantly on its ability to maintain trade secrets and other intellectual property protections. Our strategy is to rely on both trade secrets and 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. EMCORE also has an aggressive program to actively patent all areas of its technology.

To date, EMCORE has been issued eleven (11) U.S. patents and others are either pending (eight (8) patents) or under in-house review (25 disclosures). These U.S. patents will expire between 2005 and 2013. None of these U.S. patents claim any material aspects of current and planned commercial versions of EMCORE's systems, wafers or devices. EMCORE only relies on trade secrets to protect its intellectual

property when 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:

- 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;

- nonexclusive rights with respect to all other applications of these patents; and

- 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. EMCORE's 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, EMCORE 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 TurboDisc(R) systems. In October 1996 EMCORE initiated discussions with Rockwell to receive additional licenses to permit EMCORE to use this technology to manufacture and sell compound semiconductor wafers and devices. In November 1996, EMCORE suspended these negotiations because of litigation surrounding the validity of the Rockwell patent. EMCORE 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, EMCORE may be required to pay royalties to Rockwell for certain of its past sales, of wafers and devices to its customers who did not hold licenses directly from Rockwell. Management has reviewed and assessed its likely royalty obligations and believes that it has the appropriate amounts reserved at both September 30, 1999 and December 31, 1999. If EMCORE is required to pay Rockwell amounts in excess of its reserves, its business, financial condition and results of operations could be materially and adversely affected.

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 December 31, 1999, EMCORE had an order backlog of $46.6 million, scheduled to be shipped through December 31, 2000. This represented an increase of 8.1% from September 30, 1999. This increase primarily relates to increased production systems bookings in Asia and initial orders for solar cells from Loral. EMCORE only includes in backlog 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 began 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 IS 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. EMCORE 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. Ltd. 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., Matshushita 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.

MANAGEMENT

EXECUTIVE OFFICERS AND DIRECTORS

EMCORE's executive officers and directors, their ages and positions are as follows:

NAME	AGE	POSITION
Thomas J. Russell, Ph.D(1)(2).....	67	Chairman
Reuben F. Richards, Jr.(2).....	44	President, Chief Executive Officer and Director
Thomas G. Werthan.....	43	Vice President -- Finance, Chief Financial Officer and Director
Richard A. Stall (2).....	43	Vice President -- Technology, Chief Technical Officer and Director
Robert Louis-Dreyfus.....	52	Director
Hugh H. Fenwick(l)(3).....	62	Director
Shigeo Takayama(3).....	83	Director
Charles T. Scott(l)(3).....	50	Director
John J. Hogan, Jr.....	55	Director
William J. Kroll.....	55	Executive Vice President-Strategic Planning
Paul Rotella.....	44	Vice President
Thomas M. Brennan.....	45	Vice President
Robert P. Bryan.....	34	Vice President
Craig W. Farley.....	40	Vice President
Howard W. Brodie.....	32	Vice President, General Counsel and Secretary
Thomas Miehe.....	40	Vice President
David D. Hess.....	38	Corporate Controller

(1) Member of Compensation Committee
(2) Member of Nominating Committee
(3) Member of Audit Committee

Thomas J. Russell, Ph.D. has been a director of EMCORE since May 1995 and was elected Chairman of the Board in December 1996. Dr. Russell founded Bio/Dynamics, Inc. in 1961 and managed the company until its acquisition by IMS International in 1973, following which he served as President of that company's Life Sciences Division. From 1984 until 1988, he served as director, then as Chairman, of IMS International until its acquisition by Dun & Bradstreet in 1988. From 1988 to 1992, he served as Chairman of Applied Biosciences, Inc. Since 1992, he has been an investor and director of several companies. Dr. Russell currently serves as a director of Cordiant plc. Dr. Russell is one of three trustees of the AER 1997 Trust.

Reuben F. Richards, Jr. joined EMCORE in October 1995 as its President and Chief Operating Officer and became Chief Executive Officer in December 1996. Mr. Richards has been a director of EMCORE since May 1995. From September 1994 to December 1996, Mr. Richards was a Senior Managing Director of Jesup & Lamont Capital Markets Inc. ("JLCM"). From December 1994 to 1997, he was a member and President of JLMP. From 1992 until 1994, Mr. Richards was a principal with Hauser, Richards & Co., a firm engaged in corporate restructuring and management turnarounds. From 1986 until 1992, Mr. Richards was a director at Prudential-Bache Capital Funding in its Investment Banking Division. Mr. Richards also serves on the boards of EMCORE's two joint ventures, GELcore LLC and UOE LLC.

Thomas G. Werthan joined EMCORE in 1992 as its Chief Financial Officer, Vice President-Finance, Secretary and a director. Mr. Werthan is a Certified Public Accountant and has over 17 years experience in assisting high technology, venture capital financed growth companies. Prior to joining EMCORE in 1992, he was associated with The Russell Group, a venture capital partnership, as Chief Financial Officer for several portfolio companies. The Russell Group was affiliated with Thomas J. Russell. From 1985 to 1989, Mr. Werthan served as Chief Operating Officer and Chief Financial Officer for Audio Visual Labs, Inc., a manufacturer of multimedia and computer graphics equipment.

Richard A. Stall, Ph.D became a director of EMCORE in December 1996. Dr. Stall helped found EMCORE in 1984 and has been Vice President-Technology since October 1984, except for a sabbatical year in 1993, during which Dr. Stall acted as a consultant to EMCORE and his position was left unfilled. Prior to 1984, Dr. Stall was a member of the technical staff of AT&T Bell Laboratories and was responsible for the development of molecular beam expitaxy technologies. He has co-authored more than 75 papers and holds six patents on MBE and MOCVD technology and the characterization of compound semiconductor materials.

Robert Louis-Dreyfus became a director of EMCORE in March 1997. Mr. Louis-Dreyfus has been the Chairman of the Board and Chief Executive Officer of Adidas AG since April 1993. From 1990 until 1993 he had been the Chief Executive Officer of Saatchi & Saatchi plc (now Cordiant p1c) and a director of Saatchi & Saatchi plc from January 1990 until December 1994. Since 1992, he has been an investor and a director of several other companies. From 1982 until 1988, he served as Chief Operating Officer (1982 to 1983) and then as Chief Executive Officer (from 1984 to 1988) of IMS International until its acquisition by Dun & Bradstreet in 1988.

Hugh H. Fenwick served as a director of EMCORE from 1990 until 1995, and was again elected to serve on EMCORE's board of directors in June 1997. Since 1992, Mr. Fenwick has been a private investor and he currently holds the office of Mayor of Bernardsville, New Jersey, to which he was elected in 1994. From 1990 until 1992, Mr. Fenwick was the Executive Director of the Alliance for Technology Management at the Stevens Institute in Hoboken, New Jersey. Prior to that time, Mr. Fenwick worked as a marketing executive with Lockheed Electronics and with Alenia (formerly Selenia), an Italian subsidiary of Raytheon.

Shigeo Takayama became a director of EMCORE in July 1997. Mr. Takayama is the Chairman, President and founder of Hakuto, EMCORE's distributor of EMCORE's products in Japan, China and Singapore. Mr. Takayama is a Director Emeritus of Semiconductor Equipment & Material International ("SEMI"), Chairman of the Japan Electronics Products Importers Association ("JEPIA") and director of the Japan Machinery Importers' Association ("JMIA").

Charles T. Scott became a director of EMCORE in February 1998. Mr. Scott is presently Chairman of Cordiant Communications Group p1c, the successor corporation of the Saatchi & Saatchi Advertising Group. He joined Saatchi & Saatchi Company in 1990 and served as Chief Financial Officer until 1992 when he was appointed Chief Operating Officer. In 1993, he became Chief Executive Officer and held that position until 1996 when he assumed the title of Chairman. He also serves as a director of several other privately held corporations.

John J. Hogan, Jr. became a director of EMCORE in February 1999. Mr. Hogan has been President of a private investment management company since October 1997. Prior to that time, he had been with the law firm of Dewey Ballentine since 1969. He also serves as a director of several other corporations and is a former executive officer and/or director of various subsidiaries of S.A. Louis Dreyfus et Cie.

William J. Kroll joined EMCORE in 1994 as Vice President-Business Development and in 1996 became Executive Vice President-Strategic Planning. Prior to 1994, Mr. Kroll served for seven years as Senior Vice President of Sales and Marketing for Matheson Gas Products, Inc., a manufacturer and distributor of specialty gases and gas control and handling equipment. In that position, Mr. Kroll was responsible for $100 million in sales and 700 employees worldwide. Prior to working at Matheson Gas Products, Mr. Kroll was Vice President of Marketing for Machine Technology, Inc., a manufacturer of semiconductor equipment for photoresis applications, plasma strip and related equipment.

Paul Rotella joined EMCORE in 1996 as Director of Manufacturing and became Vice President TurboDisc(R) Manufacturing in October 1997. Currently, Mr. Rotella is Vice President of the TurboDisc(R) Systems Division and has overall business unit responsibility. Prior to 1996, Mr. Rotella served for three years as worldwide Manufacturing Operations Manager for Datacolor International, a manufacturer of color measurement and control instrumentation. Prior to working at Datacolor International, Mr. Rotella spent 18 years with the Aerospace unit of AlliedSignal Inc., where he was responsible for Manufacturing and Manufacturing Engineering for various Space, Flight, Missile and Test systems.

Thomas M. Brennan joined EMCORE as a result of EMCORE's December 1997 acquisition of MODE and now serves as a Vice President of EMCORE. Prior to co-founding MODE, Mr. Brennan was a senior member of the technical staff at Sandia National Laboratories from 1986 to 1996. At Sandia, he focused his efforts on the material growth of III-V compound semiconductors, reactor design, in-situ reactor diagnostics and material characterization. His responsibilities and activities included growth of some of the first VCSEL material at Sandia and in the U.S., and development of new and unique manufacturing techniques for VCSEL material growth. Prior to joining Sandia, Mr. Brennan was a member of the technical staff at AT&T Bell Laboratories from 1980 to 1984. At both facilities, he focused his efforts on expitaxial materials growth and characterization and expitaxial reactor design.

Howard W. Brodie joined EMCORE in August 1999 and serves as Vice President, General Counsel and Secretary of the Company. From September 1995 to August 1999, Mr. Brodie was an associate at the law firm of White & Case LLP, a New York law firm that has served as outside counsel to EMCORE since 1997. While at White & Case LLP, Mr. Brodie practiced securities law and mergers and acquisitions. Mr. Brodie has worked on EMCORE matters since 1998, helping to negotiate and structure the joint ventures with General Electric Lighting, Union Miniere, Inc. and Optek Technology Inc. and assisting in EMCORE's public offering which closed in June 1999. From August 1994 to August 1995, Mr. Brodie served as a judicial law clerk to Chief Judge Gilbert S. Merritt on the Sixth Circuit Court of Appeals.

Robert P. Bryan joined EMCORE as a Vice President as a result of EMCORE's December 1997 acquisition of MODE. Prior to co-founding MODE in 1995, he was a co-founder of Vixel Corporation, a Bloomfield, Colorado company which, at the time, was the first commercial company to develop and manufacture VCSEL devises for data links. He was the specific oversight executive for optoelectronic product development, including all engineering management to include all components and products. From 1990 to 1992, he was a senior member of the technical staff at Sandia National Laboratories where his research focused on the areas of VCSEL design, fabrication and characterization.

Craig W. Farley joined EMCORE in June 1998 as Vice President-Wafer Manufacturing. Dr. Farley has experience in all phases of compound semiconductor device design and manufacturing. Prior to joining EMCORE, he spent 11 years of Rockewell International Corporation ("Rockewell") where he served as a member of the technical staff at Rockewell's Science Center from 1987 to 1994 and as Manager of Advanced Device Technology for Rockwell's Gallium Arsenide Manufacturing facility from 1994 to 1998.

David D. Hess joined EMCORE in 1989 as General Accounting Manager. He was named Controller in 1990. Mr. Hess is a Certified Public Accountant and has more than ten years experience in monitoring and controlling all phases of product and process cost and general accounting systems. Prior to his employment at EMCORE, he held several positions as cost accounting manager, divisional accountant and inventory control supervisor in manufacturing firms such as Emerson Quiet Kool (air conditioner manufacturers), Huls, North America (paint/solvent processors), and Brintec Corporation (screw machine manufacturers).

Thomas Miehe joined EMCORE in 1997 as Marketing Manger for the E(2)M Division prior to becoming Director of Marketing and Sales at corporate headquarters in Somerset. In March of 1999, Mr. Miehe assumed the post of Corporate Vice President, Sales and Marketing. Prior to joining EMCORE, Mr. Miehe worked at Sumitomo Electric. He held various positions at Sumitomo, the last being Senior Manager Sales & Marketing for compound semiconductor products.

UNDERWRITING

We have entered into an underwriting agreement with the underwriters named below, for whom Prudential Securities Incorporated, SoundView Technology Group, Inc. and Roth Capital Partners Incorporated are acting as representatives. We are obligated to sell, and the underwriters are obligated to purchase, all of the shares offered on the cover page of this prospectus supplement. Subject to conditions of the underwriting agreement, each underwriter has severally agreed to purchase the shares indicated opposite its name.

UNDERWRITERS	NUMBER OF SHARES
Prudential Securities Incorporated.....	
SoundView Technology Group, Inc.....	
Roth Capital Partners Incorporated.....	
Total.....	1,000,000

The underwriters may sell more shares than the total numbers of shares offered on the cover page of this prospectus supplement and they have for a period of 30 days from the date of this prospectus supplement, an over-allotment option to purchase up to 150,000 additional shares from us. If any additional shares are purchased, the underwriters will severally purchase the shares in the same proportion as per the table above.

The representatives of the underwriters have advised us that the shares will be offered to the public at the offering price indicated on the cover page of this prospectus supplement. The underwriters may allow to selected dealers a concession not in excess of $ per share and such dealers may reallow a concession not in excess of $ per share to certain other dealers. After the shares are released for sale to the public, the representatives may change the offering price and the concessions.

We have agreed to pay to the underwriters the following fees, assuming both no exercise and full exercise of the underwriters' over-allotment option to purchase additional shares:

		TOTAL FEES	
	FEE PER SHARE	WITHOUT EXERCISE OF OVER-ALLOTMENT OPTION	FULL EXERCISE OF OVER-ALLOTMENT OPTION
Fees paid by us.....	$	$	$

In addition, we estimate that we will spend approximately $ in expenses for this offering. We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in respect of these liabilities.

We, our officers and directors and certain shareholders have entered into lock-up agreements pursuant to which we and they have agreed not to offer or sell any shares of common stock or securities convertible into or exchangeable or exercisable for shares of common stock for a period of 90 days from the date of this prospectus supplement without the prior written consent of Prudential Securities Incorporated, on behalf of the underwriters. Prudential Securities Incorporated may, at any time and without notice, waive the terms of these lock-up agreements specified in the underwriting agreement.

Prudential Securities Incorporated, on behalf of the underwriters, may engage in the following activities in accordance with applicable securities rules:

- Over-allotments involving sales in excess of the offering size creating a short position. Prudential Securities Incorporated may elect to reduce this short position by exercising some or all of the over-allotment option;

- Stabilizing and short covering; stabilizing bids to purchase the shares are permitted if they do not exceed a specified maximum price. After the distribution of shares has been completed, short covering purchases in the open market may also reduce the short position. These activities may cause the price of the shares to be higher than would otherwise exist in the open market; and

- Penalty bids permitting the representatives to reclaim concessions from a syndicate member for the shares purchased in the stabilizing or short covering transactions.

Such activities, which may be commenced and discontinued at any time, may be effected on the Nasdaq National Market, in the over-the-counter market or otherwise. Also and prior to the pricing of the shares, and until such time when a stabilizing bid may have been made, some or all of the underwriters who are market maker in the shares may make bids for or purchases of shares subject to certain restrictions, known as passive market making activities.

Prudential Securities Incorporated facilitates the marketing of new issues online through its PrudentialSecurities.com division. Clients of Prudential Advisor(SM), a full service brokerage firm program, may view offering terms and a prospectus online and place orders through their financial advisors.

A prospectus supplement and an accompanying prospectus in electronic format are being made available on an Internet web site maintained by Wit SoundView's affiliate, Wit Capital Corporation. Only the prospectus supplement and the accompanying prospectus in electronic format are part of this prospectus supplement, accompanying prospectus or the registration statement of which this prospectus supplement forms a part.

Each underwriter has represented that it has complied and will comply with all applicable law and regulations in connection with the offer, sale or delivery of the shares and related offering materials in the United Kingdom, including:

- the Public Offers of Securities Regulations 1995;

- the Financial Services Act 1986; and

- the Financial Services Act 1986. (Investment Advertisements) (Exemptions) Order 1996 (as amended).

LEGAL MATTERS

Certain legal matters in connection with the legality of the common stock offered hereby will be passed upon for us by White & Case LLP, Miami, Florida, who may rely on Dillon, Bitar & Luther, our New Jersey counsel. Certain legal matters in connection with this offering will be passed upon for the underwriters by Latham & Watkins, Washington, D.C.

EXPERTS

The consolidated financial statements and the related financial statement schedule incorporated in this prospectus supplement by reference from EMCORE's Annual Report on Form 10-K/A for the year ended September 30, 1999, have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report, which is incorporated herein by reference, and has been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

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PRUDENTIAL VOLPE TECHNOLOGY
a unit of Prudential Securities

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