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File No. 333-48545

PROSPECTUS

3,500,000 Shares

[AMERICAN SUPERCONDUCTOR LOGO]
COMMON STOCK

OF THE 3,500,000 SHARES OF COMMON STOCK ("COMMON STOCK") OFFERED HEREBY, 3,029,121 SHARES ARE BEING OFFERED BY AMERICAN SUPERCONDUCTOR CORPORATION (THE "COMPANY") AND 470,879 SHARES ARE BEING OFFERED BY THE SELLING STOCKHOLDERS (THE "SELLING STOCKHOLDERS"). SEE "PRINCIPAL AND SELLING STOCKHOLDERS." THE COMMON STOCK IS QUOTED ON THE NASDAQ NATIONAL MARKET UNDER THE SYMBOL "AMSC." ON APRIL 16, 1998, THE REPORTED CLOSING PRICE OF THE COMMON STOCK ON THE NASDAQ NATIONAL MARKET WAS $14 1/2 PER SHARE. SEE "PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY."

SEE "RISK FACTORS" BEGINNING ON PAGE 8 FOR INFORMATION THAT SHOULD BE CONSIDERED BY PROSPECTIVE INVESTORS.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

PRICE $14 A SHARE

	PRICE TO PUBLIC	UNDERWRITING DISCOUNTS AND COMMISSIONS(1)	PROCEEDS TO COMPANY(2)	PROCEEDS TO SELLING STOCKHOLDERS(1)
Per Share.....	$14.00	$.84	$13.16	$13.16
Total(3).....	$49,000,000	$2,940,000	$39,863,232	$6,196,768

- ---

(1) The Company and the Selling Stockholders have agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended. See "Underwriters."

(2) Before deducting expenses payable by the Company estimated at $300,000.

(3) The Company has granted to the Underwriters an option, exercisable within 30 days of the date hereof, to purchase up to an aggregate of 525,000 additional shares of Common Stock at the price to public less underwriting discounts and commissions, for the purpose of covering over-allotments, if any. If the Underwriters exercise such option in full, the total price to public, underwriting discounts and commissions and proceeds to the Company will be $56,350,000, $3,381,000 and $46,772,232, respectively. See "Underwriters."

The shares are offered, subject to prior sale, when, as and if accepted by the Underwriters named herein and subject to approval of certain legal matters by Davis Polk & Wardwell, counsel for the Underwriters. It is expected that delivery of the shares will be made on or about April 22, 1998 at the office of Morgan Stanley & Co. Incorporated, New York, N.Y., against payment therefor in immediately available funds.

MORGAN STANLEY DEAN WITTER

NATIONSBANC MONTGOMERY SECURITIES LLC

April 16, 1998

[INSIDE COVER ART]

SUPERCONDUCTING MAGNETIC ENERGY STORAGE ("SMES") FOR INDUSTRIAL POWER QUALITY SOLUTIONS

[picture of SMES power electronics]

Innovative power electronics are a critical component of each SMES system.

[picture of SMES diagram]

Precision integration ensures effective system performance.

[picture of SMES cryogenic system]

Advanced cryogenic system design optimizes system performance.

1993 -- 1st onsite testing of LT-SMES at chemical processing plant
1995 -- 1st HT-SMES laboratory prototype sold
1996 -- Superconductivity, Inc. (SI) signs 1st distribution agreement with major electric utility
1997 -- AMSC acquires SI
Commercial launch of 1st LT-SMES product
1998 -- Manufacturing plant expansion
1st commercial sale of hybrid HT/LT-SMES
9 LT-SMES systems currently installed at commercial sites
1999 -- Expansion of product line
Increase worldwide sales efforts and broaden channels to market

[INSIDE COVER ART FOLD-OUT]

HIGH TEMPERATURE SUPERCONDUCTIVITY FOR ELECTRIC POWER APPLICATIONS

[picture of power transformers]

ABB, in conjunction with Electricite de France, manufactured a 630 kVA transformer in 1997 using American Superconductor's AMSC'S HTS wire.

[picture of cross-sections of a copper cable and HTS wires]

Although almost 100 times smaller in cross-section, four strands of AMSC's multi filamentary HTS wire (foreground) can transmit as much electrical current as the copper cable shown here.

[picture of HTS transmission cable]

Pirelli demonstrated a 50 meter, 3300 amp prototype HTS cable conductor for power transmission in 1996 using AMSC's HTS wire.

[picture of rolls of HTS wire]

AMSC produced more than 150,000 meters of HTS wire in 1997.

[picture of HTS motor]

Building on a successful 1996 demonstration of this 286 hp motor, Reliance Electric and AMSC plan to test 1000 hp HTS motor in 1999.

1990 -- AMSC forges strategic alliance with Pirelli Cables for development of HTS wire for underground power transmission
1991 -- 0.03 horsepower (hp) HTS motor (laboratory demonstration)
1992 -- 500 amp, 1 meter HTS cable conductor demonstration
1993 -- 2 hp HTS motor (laboratory demonstration)
1994 -- 4200 amp, 1 meter HTS cable conductor demonstration
1st 1000 meter lengths of HTS wire
1995 -- Accelerated development program with Pirelli
1800 amp, 50 meter machine-stranded HTS cable conductor by Pirelli
1996 -- Strategic alliance with EPRI on 2nd generation HTS wire technology
286 hp HTS motor demonstration
Development program on HTS motors with Reliance Electric
1997 -- Three-phase, 630 kVA, HTS transformer with ABB and EDF
$10 million equity investment by EDF
AMSC acquires Superconductivity, Inc.
1998 -- Strategic alliance with ABB and EDF on HTS transformers
Contract for 1st HTS cable installation by Pirelli
1999 -- 1st 1000 hp HTS motor prototype
Manufacture of coils for 1st 5000 hp HTS motor
2000 -- 1st HTS cable installation in utility network
1st 5000 hp HTS motor prototype
1st coaxial HTS cable demonstration
1st 3-phase 10 MVA HTS transformer demonstration

2001 -- 1st commercial sales of HTS cables
        1st commercial sales of HTS motors

NO PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS, AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY ANY SECURITIES OTHER THAN THE COMMON STOCK OR AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY SUCH COMMON STOCK IN ANY CIRCUMSTANCES IN WHICH SUCH OFFER OR SOLICITATION IS UNLAWFUL. NEITHER THE DELIVERY OF THIS PROSPECTUS NOR ANY SALE THEREUNDER SHALL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE COMPANY SINCE THE DATE HEREOF OR THEREOF OR THAT THE INFORMATION CONTAINED HEREIN OR THEREIN IS CORRECT AS OF ANY TIME SUBSEQUENT TO ITS DATE.

NO ACTION HAS BEEN OR WILL BE TAKEN IN ANY JURISDICTION BY THE COMPANY OR BY ANY UNDERWRITER THAT WOULD PERMIT A PUBLIC OFFERING OF THE COMMON STOCK OR POSSESSION OR DISTRIBUTION OF THIS PROSPECTUS IN ANY JURISDICTION WHERE ACTION FOR THAT PURPOSE IS REQUIRED, OTHER THAN IN THE UNITED STATES. PERSONS INTO WHOSE POSSESSION THIS PROSPECTUS COMES ARE REQUIRED BY THE COMPANY AND THE UNDERWRITERS TO INFORM THEMSELVES ABOUT AND TO OBSERVE ANY RESTRICTIONS AS TO THE OFFERING OF THE COMMON STOCK AND THE DISTRIBUTION OF THIS PROSPECTUS.

TABLE OF CONTENTS

This Prospectus includes product names and other trade names and trademarks of the Company and product names, trademarks, and trade names owned by other companies and organizations.

CERTAIN PERSONS PARTICIPATING IN THIS OFFERING MAY ENGAGE IN TRANSACTIONS THAT STABILIZE, MAINTAIN, OR OTHERWISE AFFECT THE PRICE OF THE COMMON STOCK. SPECIFICALLY, THE UNDERWRITERS MAY OVER-ALLOT IN CONNECTION WITH THIS OFFERING, AND MAY BID FOR, AND PURCHASE, SHARES OF THE COMMON STOCK IN THE OPEN MARKET. FOR A DESCRIPTION OF THESE ACTIVITIES, SEE "UNDERWRITERS."

IN CONNECTION WITH THIS OFFERING, CERTAIN UNDERWRITERS AND SELLING GROUP MEMBERS MAY ENGAGE IN PASSIVE MARKET MAKING TRANSACTIONS IN THE COMMON STOCK ON THE NASDAQ NATIONAL MARKET IN ACCORDANCE WITH RULE 103 UNDER REGULATION M. SEE "UNDERWRITERS."

AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). Such reports, proxy statements and other information filed by the Company with the Commission can be inspected and copied at the public reference facilities maintained by the Commission at 450 Fifth Street, N.W., Washington, D.C., 20549, and at the following regional offices: Seven World Trade Center, Suite 1300, New York, New York 10048 and Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. Copies of such material can be obtained from the Commission's public reference section at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. In addition, the Company is required to file electronic versions of these documents through the Commission's Electronic Data Gathering, Analysis and Retrieval System (EDGAR). The Commission maintains a World Wide Web site at http://www.sec.gov that contains reports, proxy statements and other information regarding registrants that file electronically with the Commission. The Company's Common Stock is quoted on the Nasdaq National Market. Reports, proxy statements and other information concerning the Company can be inspected at the National Association of Securities Dealers, Inc., 1735 K Street, N.W., Washington, D.C. 20006.

The Company has filed with the Commission a Registration Statement on Form S-3 under the Securities Act of 1933, as amended (the "Securities Act"), with respect to the Common Stock offered hereby. This Prospectus does not contain all of the information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to the Company and its Common Stock, reference is hereby made to such Registration Statement, exhibits and schedules. Statements contained in this Prospectus as to the contents of any contract or any other document are not necessarily complete, and in each instance reference is hereby made to the copy of such contract or document (if any) filed as an exhibit to the Registration Statement, each such statement being qualified in all respects by such reference. The Registration Statement and the exhibits and schedules thereto may be examined without charge at the office of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549, and copies of all or any part thereof may be obtained from the Commission at prescribed rates.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents filed by the Company with the Commission are incorporated herein by reference: (1) the Company's Annual Report on Form 10-K for the fiscal year ended March 31, 1997, as amended by Amendment No. 1 on Form 10-K/A filed on July 3, 1997; (2) the Company's Quarterly Reports on Form 10-Q for the fiscal quarters ended June 30, 1997, September 30, 1997 and December 31, 1997; (3) the Company's Current Report on Form 8-K filed April 23, 1997, as amended by Amendment No. 1 on Form 8-K/A filed on June 23, 1997, the Company's Current Report on Form 8-K filed September 5, 1997 and the Company's Current Report on Form 8-K filed March 24, 1998; and (4) the Company's Registration Statement on Form 8-A filed November 5, 1991 registering the Company's Common Stock under Section 12(g) of the Exchange Act. All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Prospectus and prior to the termination of this offering of Common Stock shall be deemed to be incorporated by reference herein and to be part hereof from the date of the filing of such documents.

Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained in this Prospectus or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Prospectus.

The Company will provide without charge to each person to whom a copy of this Prospectus is delivered, upon the written or oral request of any such person, a copy of any or all of the documents incorporated by reference into this Prospectus (without exhibits to such documents other than exhibits specifically incorporated by reference into such documents). Such requests should be directed to the Treasurer of the Company, Two Technology Drive, Westborough, Massachusetts 01581, telephone (508) 836-4200.

SUMMARY

The following summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information and the consolidated financial statements of the Company and the notes thereto appearing elsewhere in this Prospectus or incorporated by reference herein. As used in this Prospectus, the "Company" or "AMSC" refers to American Superconductor Corporation, a Delaware corporation, and its subsidiaries (including from the date of its inception Superconductivity, Inc. ("SI"), which was acquired by the Company in April 1997). Unless otherwise indicated, all information in this Prospectus assumes that the Underwriters' over-allotment option to purchase from the Company up to 525,000 additional shares of Common Stock will not be exercised. See "Glossary of Significant Technical Terms" for the definitions of certain terms used in this Prospectus. The Company was incorporated in Delaware on April 9, 1987. Its corporate offices are located at Two Technology Drive, Westborough, Massachusetts 01581 and its telephone number is (508) 836-4200.

THE COMPANY

American Superconductor Corporation is an industry leader in developing, manufacturing and marketing products utilizing superconducting materials for electric power applications. Electrical products that incorporate superconducting wires can be more efficient, compact and cost effective than those utilizing conventional copper wires. Products incorporating superconducting materials are currently utilized in the medical, electronics, power equipment and transportation industries.

Superconducting wires provide significant advantages over conventional copper wires because superconducting wires conduct electricity with little or no resistance and associated energy loss, and can transmit much larger amounts of electricity than conventional wires of the same size. The Company's development and commercialization efforts have been focused on electrical products and equipment utilizing superconductors for use in the electric power industry. According to industry sources, it is estimated that in the year 2010, worldwide products based on superconductors that are sold to the electric power industry will generate approximately $12 billion of revenues.

The Company currently manufactures and markets commercial industrial power quality products and services. These products incorporate superconducting magnetic energy storage ("SMES") systems utilizing low temperature superconductor ("LTS") electromagnets ("LT-SMES"). The Company's SMES systems are designed to address industrial power quality and reliability problems, which industry sources estimate cost U.S. industry alone more than $10 billion per year in factory downtime and lost work in process. These systems are expected to be sold initially to semiconductor production facilities, pulp and paper mills, chemical processing plants, and similar power-intensive manufacturing operations. The Company has nine SMES units in operation at customer sites, the first of which was installed in May 1993.

The Company has focused its new product development efforts on improving the performance of high temperature superconductors ("HTS"), the first of which was discovered in 1986. HTS materials exhibit little or no resistance to the flow of electrical current at significantly higher temperatures than previously existing superconducting materials (LTS materials), and HTS products therefore offer significant cost and performance advantages relative to LTS products. HTS wire is the basic building block for electric power applications under development. The Company anticipates that it will begin to market HTS products for use in electric power applications such as underground power transmission cables, motors, transformers, generators and fault current limiters over the next two to four years. The Company is also incorporating its HTS technology into its LT-SMES products in order to reduce systems manufacturing costs and to improve the efficiency of operation of the LT-SMES products.

The Company's strategic relationships, research arrangements and government contracts provide it with significant benefits including technical assistance, development and marketing rights to important technologies, research and development funding, and potential direct markets for the Company's products. The Company's corporate partners Electricite de France ("EDF"), Pirelli Cavi E Sistemi S.p.A. ("Pirelli") and ABB Power Transmission and Distribution Company SA ("ABB") fund research and development related to

specific product applications. Since April 1, 1993, the Company has received more than $30 million of funding pursuant to research and development contracts. In April 1997, EDF, one of the world's largest electric utilities, invested $10 million in the Company through the purchase of shares of the Company's Common Stock. In January 1998, ABB, one of the world's largest electrical equipment manufacturers, and EDF each agreed pursuant to separate joint development agreements to provide $5 million in development funds to the Company through 2001 to develop HTS wire for transformers. As of December 31, 1997, the Company had received through a joint development agreement an aggregate of $12.7 million from Pirelli, one of the world's largest cable and cable systems manufacturers, for the development of HTS wires for use in power transmission cables. Pirelli has agreed to provide an additional $3.4 million in funding through September 30, 1999. See "Business -- Strategic Relationships, Research Arrangements and Government Contracts."

The Company believes that, in order to be able to operate in its chosen areas of business, it is important to have a globally-oriented patent and licensing strategy. The Company has developed and plans to continue to develop a strong patent portfolio, both through filing its own patent applications in selected countries, and by licensing key patents from others. The Company will use its patent portfolio to assist it in negotiating licensing agreements with others who may have key patents the Company needs to operate its business. See "Business -- Patents, Trade Secrets and Licenses."

THE OFFERING

Common Stock offered by the Company	3,029,121 shares
Common Stock offered by the Selling Stockholders(1)	470,879 shares
Total	3,500,000 shares
Common Stock to be outstanding after this offering(2)	14,728,746 shares
Use of proceeds	For general corporate purposes, primarily to fund its operations, to acquire capital equipment and for repayment of debt. The Company will not receive any proceeds from the shares of Common Stock being sold by the Selling Stockholders. See "Use of Proceeds."
Nasdaq National Market symbol	"AMSC"

(1) These shares are being offered by certain former stockholders of SI.

(2) Based on the number of shares outstanding as of February 27, 1998, and excluding 3,335,658 shares reserved for issuance upon the exercise of stock options and warrants outstanding as of February 27, 1998.

SUMMARY CONSOLIDATED FINANCIAL DATA

	YEAR ENDED MARCH 31,(1)					NINE MONTHS ENDED DECEMBER 31,(1)	
	1993	1994	1995	1996	1997	1996	1997
	(IN THOUSANDS, EXCEPT PER SHARE DATA)						
STATEMENT OF OPERATIONS DATA:							
Total revenues	$ 3,508	$ 4,942	$ 8,593	$10,764	$ 10,551	$ 7,980	$11,384
Total costs and expenses	11,914	13,376	17,267	21,796	23,345	17,426	20,617
Net loss	(7,435)	(7,717)	(7,036)	(9,698)	(13,377)	(9,488)	(8,894)
Net loss per common share (basic and diluted)	(0.85)	(0.86)	(0.69)	(0.94)	(1.27)	(0.90)	(0.76)
Weighted average number of common shares outstanding (basic and diluted)	8,712	8,980	10,249	10,352	10,498	10,498	11,638
OTHER DATA:							
Research and development expenses	$ 4,546	$ 4,787	$ 5,349	$ 5,704	$ 8,477	$ 6,814	$ 6,382
Adjusted research and development expenses(2)	6,834	7,850	10,054	11,544	14,678	11,438	12,161

	AS OF DECEMBER 31, 1997	
	ACTUAL	AS ADJUSTED(3)
	(IN THOUSANDS)	
BALANCE SHEET DATA:		
Cash, cash equivalents and long-term marketable securities	$ 9,717	$46,138
Working capital	7,599	44,020
Total assets	22,459	58,880
Total long-term debt	3,142	--
Stockholders' equity	15,958	55,521

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(1) All financial information presented herein has been retroactively restated to reflect the April 1997 acquisition of SI, which has been accounted for as a pooling of interests. See the Company's consolidated financial statements and the notes thereto incorporated herein by reference.

(2) Consists of research and development expenses plus (i) research and development expenses related to externally funded development contracts included in costs of revenue and (ii) research and development expenses offset by cost-sharing funding under government contracts. The Company believes that adjusted research and development expenses provides useful information as to the Company's aggregate research and development spending. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

(3) Adjusted to reflect the sale by the Company of the 3,029,121 shares of Common Stock offered by the Company hereby, after deducting the underwriting discounts and commissions and estimated offering expenses, and the application of the net proceeds therefrom. See "Use of Proceeds" and "Capitalization."

RISK FACTORS

In evaluating the Company and its business, prospective investors should carefully consider the following risk factors in addition to the other information contained in this Prospectus before purchasing the Common Stock. Any statements included in this Prospectus (including statements to the effect that the Company or its management "believes," "expects," "anticipates," "plans" and similar expressions) which are not statements regarding historical matters constitute forward looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. There are a number of important factors which could cause actual events or the Company's actual results of operations and financial condition in the future to vary from that indicated in such forward looking statements. Factors that may cause such differences include, without limitation, the risks, uncertainties and other information set forth below.

DEVELOPMENT STAGE OF THE COMPANY; TECHNOLOGICAL CHALLENGES

To date, the Company has been principally engaged in research and development activities. Many of the Company's products are in the early stages of commercialization and testing, while others are still under development. There are a number of technological challenges that the Company must successfully address to complete any of its commercialization and development efforts. Neither the Company, nor to its knowledge any other company, has successfully developed and commercialized any significant quantities of HTS wires or wire products. There can be no assurance that the Company will be able to meet such technological challenges and commercialize any such products or that these products, if developed and commercialized, will be technically or commercially successful. In addition, delays in development, as a result of technological challenges or otherwise, may result in the Company's introducing its products later than anticipated, which may have an adverse effect on both the Company's financial and competitive position. The Company believes that several years of further development will be necessary before its HTS wires and wire products will be available for significant commercial end-use applications, and that significant additional development work is necessary to improve the commercial feasibility and acceptance of its LT-SMES products. Moreover, there can be no assurance that the Company will ever be successful in developing and manufacturing HTS or LT-SMES products in commercial quantities at commercially acceptable cost levels or on a timely basis, or that any HTS or LT-SMES products developed and manufactured by the Company will attain market acceptance. See "Business."

UNCERTAINTY REGARDING DEVELOPMENT OF MARKET

To date, there has been no widespread commercial use of HTS products. Although LTS products are currently used in a number of commercial applications, commercial acceptance of LTS products has been significantly limited by the cooling requirements of LTS materials and other factors. There can be no assurance that the technological hurdles currently limiting commercial use of HTS and LTS products will ever be overcome. Moreover, if such technological hurdles are overcome, there can be no assurance that the market demands currently anticipated by the Company for its HTS and LTS products will develop or that superconductivity products will ever achieve widespread commercial acceptance. See "Business."

HISTORY OF LOSSES AND UNCERTAINTY OF FINANCIAL RESULTS

The Company has incurred net losses in each year since its inception. The Company's net loss for fiscal 1996, fiscal 1997 and the first nine months of fiscal 1998 was $9,698,000, $13,377,000 and $8,894,000, respectively, and the Company had an accumulated deficit as of December 31, 1997 of $70,307,000. The Company expects to continue to incur operating losses for at least the next few years and there can be no assurance that the Company will ever achieve a profitable level of operations. See "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

UNCERTAINTIES REGARDING PROPRIETARY RIGHTS

The Company expects that some or all of the HTS materials now used, or that may be used in the future, in the manufacture of its products, and certain aspects of the technologies now used, or that may be used in

the future, by the Company in processing HTS materials, are or will become covered by patents issued to other parties (who may include competitors of the Company). Accordingly, the Company will need to acquire licenses to, or successfully contest the validity of, such patents in order to avoid patent infringement claims being brought against it. Based on commercial practices in other industries, the Company is optimistic that such licenses will be available. However, there can be no assurance that such licenses will be available, or that, if available, they will be available on commercially reasonable terms. If the Company is unable to obtain licenses under such patents, the Company may be required to successfully contest the validity or scope of such patents to avoid infringement claims by the owners of such patents. The likelihood of successfully contesting the validity or scope of any such patents or of otherwise prevailing in a patent infringement claim is uncertain. In any event, even if the Company were successful in such actions, the Company could incur substantial costs in prosecuting or defending such actions. The failure of the Company to obtain such licenses or to successfully contest such patents, if necessary, would have a material adverse effect upon the Company's business, financial condition and results of operations.

The Company owns or has rights under a number of patents and pending patent applications. However, there can be no assurance that the patent applications filed by the Company or by the Company's licensors will result in patents being issued, that any patents issued will afford meaningful protection against competitors or that any patents issued will not be challenged by third parties. Moreover, the Company could incur substantial litigation costs in defending the validity of its own patents. There also can be no assurance that others will not independently develop similar technologies, duplicate the Company's technologies or, if patents are issued to the Company, design around the patented aspects of any technologies developed by the Company. The Company also relies on trade secrets and proprietary know-how to protect its intellectual property. However, there can be no assurance that the Company's non-disclosure agreements and other safeguards will provide meaningful protection for the Company's trade secrets and other proprietary information. See "Business -- Patents, Trade Secrets and Licenses."

COMPETITION AND TECHNOLOGICAL CHANGE

The superconductivity industry is characterized by rapidly changing and advancing technology. In the market for industrial power quality systems and services, the Company competes with vendors of a number of non-superconductivity products as well as developers of SMES systems. The Company does not know of any companies currently selling LT-SMES products that compete with the SMES products offered by the Company. However, at least one company, Intermagnetics General Corporation ("IGC"), is developing SMES systems for power quality applications, and the Company believes there is a government-sponsored program in Japan to develop SMES systems for power quality applications. The Company's SMES products also compete against dynamic voltage restorers produced by companies such as Westinghouse, flywheels under development by various companies around the world, and battery-based, uninterruptible power supply systems, which are widely manufactured and used around the world. A number of companies are working to bring to market high performance, technologically advanced, cost effective HTS products for electric power applications. For HTS applications, the Company's principal competitors presently include several major Japanese companies, such as Sumitomo Electric Industries, Ltd., Hitachi, Ltd. and Furukawa Electric Co. Ltd.; several European companies, such as Siemens A.G. in Germany and B.I.C.C. and Oxford Instruments in England; and several companies in the U.S., such as IGC and 3M.

The future success of the Company will depend in large part upon its ability to keep pace with advancing HTS and LTS technology and developing industry standards. There can be no assurance that the Company's development efforts will not be rendered obsolete by research efforts and technological advances made by others. Many of the Company's competitors have substantially greater financial resources, research and development, manufacturing and marketing capabilities than the Company. In addition, as the power quality and HTS markets develop, other large industrial companies may enter these fields and compete with the Company. See "Business -- Competition."

FUTURE CAPITAL NEEDS

The Company may require substantial additional funds after this offering for its research and development programs, operating expenses, licensing fees, scale-up of manufacturing capabilities, expansion of sales and marketing capabilities, potential acquisitions and working capital. The Company believes, based upon its current business plan, that the proceeds of this offering, together with its current cash and marketable securities, should be sufficient to fund the Company's operations as planned for at least the next three years. However, the Company may need additional funds sooner than anticipated if the Company's performance deviates significantly from its current business plan or if there are significant changes in competitive or other market factors. There can be no assurance that such funds, whether from equity or debt financing, development contracts or other sources, will be available, or available on terms acceptable to the Company. If adequate funding is not available, the Company may be required to reduce, delay or eliminate certain research and development, marketing or manufacturing activities or to license or sell to others certain proprietary technology, which could delay, either temporarily or permanently, the development and commercialization of certain products and technologies currently under development by the Company. See "Management's Discussion and Analysis of Financial Condition and Results of Operations -- Liquidity and Capital Resources."

LACK OF MANUFACTURING AND MARKETING EXPERIENCE

For the Company to be financially successful, it must manufacture the products developed by it in commercial quantities at acceptable costs and on a timely basis. The production of commercial quantities at acceptable costs presents a number of technological and engineering challenges for the Company, and significant start-up costs and unforeseen expenses may be incurred in connection with efforts to manufacture commercial quantities of the Company's products. Accordingly, there can be no assurance that the Company will be able to make the transition to commercial production successfully. See "Business -- HTS Wire Production Processes."

In addition, the Company will be required to develop a marketing and sales force that will effectively demonstrate the advantages of its products over more traditional products, as well as competitive superconductive products. The Company's marketing and selling experience to date is limited. The Company may also elect to enter into agreements or relationships with third parties regarding the commercialization or marketing of its products. If the Company enters into such agreements or relationships, it will be substantially dependent upon the efforts of others in deriving commercial benefits from its products. There can be no assurance that the Company will be successful in its marketing efforts, that it will be able to establish adequate sales and distribution capabilities, that it will be able to enter into marketing agreements or relationships with third parties on financially acceptable terms, or that any third parties with whom it enters into such arrangements will be successful in marketing the Company's products. See "Business -- Applications and Markets for Superconductors."

DEPENDENCE ON STRATEGIC RELATIONSHIPS

The Company's business strategy includes entering into strategic relationships with corporate partners. Although the Company has strategic relationships with Pirelli, EDF and ABB, there can be no assurance that the Company will be able to maintain these relationships or that these relationships will be technologically or commercially successful. In addition, there can be no assurance that the Company will be able to negotiate additional strategic relationships, that such relationships will be available to the Company on acceptable terms or that any such relationships, if established, will be technologically or commercially successful. The Company expects that its corporate partners will provide the Company with, among other things, technical assistance, development and marketing rights to important technologies, research and development funding and a potential direct market, or access to potential markets, for the Company's products. The failure of any of the Company's corporate partners to provide these benefits or the termination of the relationship with any of the Company's corporate partners could have a material adverse effect on the Company's business, financial condition and results of operations. See "Business -- Strategic Relationships, Research Arrangements and Government Contracts."

DEPENDENCE ON KEY PERSONNEL

The Company's success will depend in large part upon its ability to attract and retain highly qualified research and development, management, manufacturing, marketing and sales personnel. Due to the specialized nature of the Company's business, it may be difficult to locate and hire qualified personnel. The Company is particularly dependent upon the services of Dr. Gregory J. Yurek, a founder and its Chairman of the Board, President and Chief Executive Officer, and Dr. Alexis P. Malozemoff, its Chief Technical Officer. The loss of the services of either of these individuals, or the failure of the Company to attract and retain other key personnel, could have a material adverse effect on the Company's business, financial condition and results of operations. See "Management."

DEPENDENCE ON ACQUISITIONS STRATEGY

The Company's strategy includes acquiring companies to enhance its market position, add value to its product lines and strengthen its technology base. The Company made two acquisitions in 1997. There can be no assurance that the Company will make any additional acquisitions in the future or, if it makes an acquisition, as to the terms of any such acquisition. Any acquisitions present a number of new challenges for the Company's management, including the entry into new lines of business, the integration of new products, technologies and personnel into the Company's existing business organization, the management and operation of geographically dispersed operations, and the adaptation of the Company's information systems and management structure to a larger organization. There can be no assurance that the Company will be successful in addressing these challenges, or that acquisitions will produce the benefits anticipated by the Company.

POSSIBLE VOLATILITY OF STOCK PRICE

The market price of the Company's Common Stock has historically experienced significant volatility and may continue to experience such volatility in the future. Factors such as technological achievements by the Company and its competitors, the establishment of development or other collaborative relationships with other companies, the introduction of commercial products, and the Company's financial performance may have a significant effect on the market price of the Common Stock. In addition, the stock market in general has in recent years experienced extreme price and volume fluctuations, which are often unrelated to the performance or condition of particular companies, and these broad market fluctuations could adversely affect the market price of the Common Stock. See "Price Range of Common Stock and Dividend Policy."

DILUTION

The public offering price of the Common Stock offered hereby will be substantially higher than the net tangible book value per share of the currently outstanding Common Stock. Investors purchasing shares in this offering will therefore suffer immediate and substantial dilution. See "Dilution."

USE OF PROCEEDS

The net proceeds to the Company from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by the Company, are expected to be $39.6 million ($46.5 million if the Underwriters' over-allotment option is exercised in full). The Company will not receive any proceeds from the sale of Common Stock by the Selling Stockholders.

The Company intends to use the net proceeds from this offering to fund its operations, to acquire capital equipment and to repay outstanding indebtedness under the SI Notes (as defined below). The Company is in the process of preparing for commercial operations and expects to expend significant funds in that process. In addition, the Company anticipates that a portion of the net proceeds may be used for the payment of licensing fees under patent and other technology licenses. The Company may also use a portion of the net proceeds to acquire businesses, products or technologies complementary to the Company's current business, although the Company has no current plans or commitments for any such acquisitions. The exact uses by the Company of the proceeds of this offering, and the amounts expended for the various purposes described above, will depend on a number of factors, including the progress of the Company's commercialization and development efforts, the status of the Company's relationships with strategic partners and technological developments in the industry. Pending the uses described above, the Company intends to invest the net proceeds of this offering in short-term and long-term, interest-bearing, investment-grade marketable securities.

In connection with the acquisition of SI, the Company issued subordinated notes to certain of the former stockholders of SI in the aggregate original principal amount of approximately $3.1 million (the "SI Notes"). The SI Notes bear interest at the rate of 7% per annum, payable semi-annually, and mature on April 8, 1999.

PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY

The Company's Common Stock has been quoted on the Nasdaq National Market under the symbol "AMSC" since 1991. The following table sets forth the high and low sales price per share of the Company's Common Stock as reported on the Nasdaq National Market for the periods indicated.

	COMMON STOCK PRICE	
	HIGH	LOW
FISCAL YEAR ENDED MARCH 31, 1997:		
First quarter	15	12 1/8
Second quarter	15 3/4	11
Third quarter	15 1/4	9 3/4
Fourth quarter	12	7 3/4
FISCAL YEAR ENDED MARCH 31, 1998:		
First quarter	12 1/4	8 1/8
Second quarter	13 3/8	8 1/2
Third quarter	14 3/4	8 1/4
Fourth quarter	15 1/8	8 1/2
FISCAL YEAR ENDED MARCH 31, 1999:		
First quarter (through April 16, 1998)	18 1/4	13 11/16

The reported closing price of the Company's Common Stock on the Nasdaq National Market on April 16, 1998 was $14 1/2 per share. The number of stockholders of record on February 27, 1998 was 406.

The Company has never paid cash dividends on its Common Stock, and the Company does not expect to pay dividends on its Common Stock in the foreseeable future.

CAPITALIZATION

The following table sets forth the cash, cash equivalents and long-term marketable securities and the consolidated capitalization of the Company as of December 31, 1997 and as adjusted to give effect to the sale by the Company of the 3,029,121 shares of Common Stock offered by the Company hereby, after deducting the underwriting discounts and commissions and estimated offering expenses, and the application of the net proceeds therefrom as described under "Use of Proceeds." The table should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Company's consolidated financial statements and the notes thereto incorporated herein by reference.

	DECEMBER 31, 1997	
	ACTUAL	AS ADJUSTED
	(IN THOUSANDS)	
Cash, cash equivalents and long-term marketable securities	$ 9,717	$ 46,138
Long-term debt	$ 3,142	--
Stockholders' equity:		
Common Stock, $.01 par value; 20,000,000 shares authorized; 11,696,991 shares issued and outstanding; 14,726,112 shares issued and outstanding, as adjusted(1)	117	147
Additional paid-in capital	86,580	126,113
Deferred contract costs	(438)	(438)
Unrealized gain (loss) on investment	29	29
Cumulative translation adjustment	(23)	(23)
Accumulated deficit	(70,307)	(70,307)
Total stockholders' equity	15,958	55,521
Total capitalization	$ 19,100	$ 55,521

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(1) Excludes 2,953,792 shares of Common Stock reserved as of December 31, 1997 for issuance upon exercise of outstanding options and warrants.

DILUTION

As of December 31, 1997, the Company had a net tangible book value of approximately $15,958,000, or $1.36 per share. Net tangible book value per share represents the Company's total tangible assets less its total liabilities, divided by the aggregate number of shares of Common Stock outstanding. After giving effect to the sale of the 3,029,121 shares of Common Stock offered by the Company hereby, after deducting the underwriting discounts and commissions and estimated offering expenses, and the application of the net proceeds therefrom as described under "Use of Proceeds," the Company's net tangible book value at December 31, 1997 would have been approximately $55,521,000, or $3.77 per share. This represents an immediate increase in net tangible book value per share of $2.41 to existing stockholders and an immediate dilution of $10.23 per share to the new investors. Dilution per share represents the difference between the amount per share paid by the new investors in this offering and the net tangible book value per share at December 31, 1997, giving effect to this offering and application of the proceeds therefrom. The following table illustrates this per share dilution to new investors.

Public offering price per share		$14.00
Net tangible book value per share before this offering	$1.36	
Increase in net tangible book value per share resulting from this offering	2.41	
Net tangible book value per share after this offering		3.77
Dilution per share to new investors		$10.23

The foregoing calculations do not give effect to the exercise of stock options and warrants outstanding as of December 31, 1997 for the purchase of an aggregate of 2,953,792 shares of Common Stock. The exercise of such options and warrants would result in further dilution to new investors.

SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated financial data presented below reflects the combined results of operations and financial position of the Company and SI restated for all periods presented pursuant to the pooling of interests method of accounting. The financial data for each of the five fiscal years in the period ended March 31, 1997 have been derived from the combination of the Company's consolidated financial statements that have been audited by Coopers & Lybrand L.L.P., independent accountants, and the SI financial statements that have been audited by other independent accountants. In addition, the combination of the separate audited financial statements of the Company and SI for the three fiscal years in the period ended March 31, 1997 has been audited by Coopers & Lybrand L.L.P. The financial data for the nine-month periods ended December 31, 1996 and 1997 and as of such dates have been derived from the unaudited consolidated financial statements of the Company. In the opinion of management of the Company, such unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and include all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the Company's operating results and financial position for such periods and as of such dates. The Company's operating results for the nine months ended December 31, 1997 are not necessarily indicative of the results to be expected for the entire fiscal year ending March 31, 1998.

Prior to the acquisition of SI by the Company, SI's fiscal year end was December 31. Effective upon the consummation of the acquisition, SI's fiscal year end was changed to March 31 to conform to the Company's fiscal year end. The audited results of SI's operations for the twelve month periods ended December 31, 1996, 1995, 1994, 1993 and 1992 are included in the Company's results of operations for the fiscal years ended March 31, 1997, 1996, 1995, 1994 and 1993, respectively. SI's audited balance sheets as of December 31, 1996, 1995, 1994, 1993 and 1992 are included in the Company's balance sheets as of March 31, 1997, 1996, 1995, 1994 and 1993, respectively. As a result, SI's results of operations for the quarter ended March 31, 1997 are not included in the consolidated statements of operations of the Company. In the quarter ended March 31, 1997, SI recorded revenues of $262,295 and incurred a net loss of $2,156,399, which included merger-related expenses of $1,457,054.

This financial data should be read in conjunction with the other financial information appearing elsewhere in this Prospectus or incorporated by reference herein.

	FISCAL YEAR ENDED MARCH 31,					NINE MONTHS ENDED DECEMBER 31,	
	1993	1994	1995	1996	1997	1996	1997
	(IN THOUSANDS, EXCEPT PER SHARE DATA)						
STATEMENT OF OPERATIONS DATA:							
Revenues:							
Contract revenue	$ 2,344	$ 3,275	$ 6,596	$ 7,526	$ 6,867	$ 5,037	$ 6,547
Product sales and prototype development contracts	989	728	1,107	2,366	2,937	2,330	4,053
Rental/other revenue	175	939	889	872	747	613	783
Total revenues	3,508	4,942	8,593	10,764	10,551	7,980	11,384
Costs and expenses:							
Costs of revenue(1)	3,442	4,999	7,993	11,553	10,577	7,538	10,511
Research and development(1)	4,546	4,787	5,349	5,704	8,477	6,814	6,382
Selling, general and administrative(1)	3,462	3,518	3,924	4,538	4,291	3,073	3,724
Relocation costs	464	72	--	--	--	--	--
Total costs and expenses	11,914	13,376	17,267	21,796	23,345	17,426	20,617
Transaction fees	--	--	--	--	(710)	--	(136)
Interest income	973	786	1,873	1,585	1,177	933	677
Interest expense	--	(60)	(212)	(215)	(356)	(281)	(188)
Other income (expense), net	(2)	(8)	(23)	(38)	(693)	(694)	(12)
Net loss	$(7,435)	$(7,717)	$(7,036)	$(9,698)	$(13,377)	$(9,488)	$(8,894)
Net loss per common share (basic and diluted)	$ (0.85)	$ (0.86)	$ (0.69)	$ (0.94)	$ (1.27)	$ (0.90)	$ (0.76)
Weighted average number of common shares outstanding (basic and diluted)	8,712	8,980	10,249	10,352	10,498	10,498	11,638
OTHER DATA:							
Research and development expenses	$ 4,546	$ 4,787	$ 5,349	$ 5,704	$ 8,477	$ 6,814	$ 6,382

Adjusted research and development expenses(2).....	6,834	7,850	10,054	11,544	14,678	11,438	12,161

	MARCH 31,					DECEMBER 31,
	1993	1994	1995	1996	1997	1997
	(IN THOUSANDS)					
BALANCE SHEET DATA:						
Cash, cash equivalents and short-term and long-term marketable securities	$24,301	$41,774	$33,653	$26,519	$16,031	$ 9,717
Working capital	18,439	7,666	2,341	5,101	318	7,599
Total assets	29,043	50,037	44,887	35,856	26,581	22,459
Total long-term debt	--	1,885	1,693	1,898	3,074	3,142
Stockholders' equity	25,631	45,349	38,416	29,780	16,501	15,958

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(1) Costs of revenue include certain research and development expenses and selling, general and administrative expenses incurred in connection with work performed under development contracts. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

(2) Consists of research and development expenses, plus (i) research and development expenses related to externally funded development contracts included in costs of revenue and (ii) research and development expenses offset by cost-sharing funding under government contracts. The Company believes that adjusted research and development expenses provides useful information as to the Company's aggregate research and development spending. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The Company was founded in 1987 to develop for commercialization HTS wires and wire products. On April 8, 1997, the Company acquired SI in a transaction accounted for under the pooling of interests method of accounting. Accordingly, the Company's consolidated financial statements reflect the combined financial position, operating results and cash flows of the Company and SI as if they had been combined for all periods presented. For purposes of the discussion of the results of operations of the Company for the fiscal years ended March 31, 1997, 1996 and 1995, the term "Former ASC" is used to refer to the Company prior to the SI acquisition. On July 31, 1997, the Company acquired Applied Engineering Technologies, Ltd. ("AET") in a transaction accounted for under the pooling of interests method of accounting. Due to the immaterial effect on the Company's consolidated financial statements, prior periods have not been adjusted to reflect the effect of this transaction on the financial position, operating results and cash flows of the Company.

RESULTS OF OPERATIONS

NINE MONTHS ENDED DECEMBER 31, 1997 AND DECEMBER 31, 1996

Revenues during the nine months ended December 31, 1997, increased 43% to $11,384,000 as compared to $7,980,000 for the same 1996 period. Revenues were positively affected by the recognition of $2,400,000 in revenue on the four-year research and development cost reimbursement contract (the "ABB/EDF Agreement") with EDF and ABB. This agreement is retroactively effective to April 1, 1997, and provides for payments of $800,000 per quarter for the first three quarters of fiscal 1998. As the agreement was only recently finalized, the $2,400,000 in revenue and associated costs were not recognized until the third quarter. Revenues for the first nine months of fiscal year 1998 were also positively affected by new contracts with the Department of the Navy and Electric Power Research Institute ("EPRI") as well as SI's sales of SMES systems in the first and second quarters. Prior year revenues for the nine months ended December 31, 1996 included $825,000 relating to a research and development contract with Inco Alloys International, Inc. ("Inco") which was discontinued on December 31, 1996.

For the nine months ended December 31, 1997, the Company also recorded funding of $1,198,000 under government cost-sharing agreements, as compared to $1,346,000 for the comparable period in 1996. The Company anticipates that a portion of its funding in the future will continue to come from cost- sharing agreements as the Company continues to develop joint programs with government agencies. Funding from government cost-sharing agreements is recorded as an offset to research and development and selling, general and administrative expenses, as required by government contract accounting guidelines, rather than as revenues.

The Company's total operating expenses for the nine months ended December 31, 1997 were $20,617,000 compared to $17,426,000 for the same period in the prior year.

For the nine months ended December 31, 1997, costs of revenue increased to $10,511,000 from $7,538,000 for the same period a year earlier. These increases reflect the costs of revenue associated with the revenue recognized under the ABB/EDF Agreement, costs of revenue associated with SI's sales of SMES systems, and the costs of revenue associated with the Navy and EPRI contracts.

For the first nine months of fiscal year 1998, research and development ("R&D") expenses were $6,382,000 compared to $6,814,000 for the same period last year. The decline in net R&D expenses on a year-to-date basis is due to a higher percentage of R&D expenditures being classified as costs of revenue (rather than as R&D expenses) as they relate to externally funded development contracts. These R&D expenditures included in costs of revenue for the nine-month period ended December 31, 1997 were $5,162,000, compared to $3,931,000 for the same period in the prior year. In addition, the R&D amounts offset by cost-sharing funding were $617,000 and $693,000 for the first nine months of fiscal years 1998 and 1997, respectively.

Selling, general and administrative ("SG&A") expenses for the nine months ended December 31, 1997 were $3,724,000 compared to $3,073,000 for the same period in the prior year. This increase was primarily due to additional recruiting, legal, consulting, and marketing expenses incurred to support the overall increase in

the Company's revenues and R&D activities. The SG&A amount offset by cost-sharing funding was $580,000 for the nine months ended December 31, 1997, as compared to $653,000 for the comparable period in 1996. In addition, certain SG&A expenditures related to externally funded development contracts have been classified as costs of revenue (rather than as SG&A expenses). Such indirect costs included in costs of revenue during the nine months ended December 31, 1997 were $2,547,000. For the nine months ended December 31, 1996, these costs were $1,606,000.

Transaction fees of $136,000 for the nine months ended December 31, 1997 reflect certain legal and accounting fees incurred this fiscal year associated with the acquisition of SI on April 8, 1997 ($66,000) and AET on July 31, 1997 ($70,000). Other income (expense) for the nine months ended December 31, 1996 includes $670,000 of expense incurred by SI relating to a terminated merger negotiation.

Interest income was $677,000 in the nine months ended December 31, 1997 compared to $933,000 for the same period in the previous year. This decrease primarily reflects lower cash balances available for investment as a result of cash being used to fund the Company's operations, to purchase property and equipment, and to pay down SI's liabilities.

Interest expense was $188,000 in the nine months ended December 31, 1997 compared to $281,000 for the same period in the previous year. This decrease primarily reflects the Company's retirement of certain SI bank debts and liabilities.

The Company expects to continue to incur operating losses for the next few years, as it continues to devote significant financial resources to its research and development activities and commercialization efforts.

The Company expects to be party to agreements which, from time to time, may result in costs incurred exceeding expected revenues under such contracts. The Company may enter into such agreements for a variety of reasons including, but not limited to, entering new product application areas, furthering the development of key technologies, and advancing the demonstration of commercial prototypes in critical market applications.

FISCAL YEARS ENDED MARCH 31, 1997 AND MARCH 31, 1996

Total revenues decreased to $10,551,000 in fiscal 1997 from $10,764,000 in fiscal 1996. The Former ASC's revenues from research and development contracts, prototype development contracts and the sale of prototypes increased to $7,175,000 in fiscal 1997 from $7,131,000 in fiscal 1996. This increase was due primarily to work performed on a research and development contract with ABB and increases in funding on various U.S. government grants and prototype development contracts. This increase was largely offset by a drop in prototype sales associated with a major cable prototype on which the Former ASC concluded shipping HTS wire in the year ended March 31, 1996, and by the discontinuation (effective December 31, 1996) of the joint research and development program on metallic precursor wire technology with Inco, which had been providing $1.1 million in annual funding.

At SI, revenues in fiscal 1997 were $3,376,000 compared to $3,633,000 in fiscal 1996. This decrease in revenues was due to the completion of a long-term cost-plus-fixed-fee government contract in September 1996, which was in progress during all of fiscal 1996. SI began an additional long-term government contract in October of 1996; however, revenue under this firm fixed-price contract was not recognized until fiscal 1998. The decrease in SI's contract revenue (from a total of $2,762,000 in 1996 to $1,570,000 in 1997) was partially offset by SI's first commercial sale of a customer evaluation unit which generated $993,000 in revenue in fiscal 1997.

In addition to reported revenues, the Former ASC also received funding of $1,706,000 in fiscal 1997 under government cost-sharing agreements as compared to $985,000 in fiscal 1996. This increased cost-sharing funding was primarily due to the award of a $20.5 million Phase II Superconductivity Partnership Initiative contract on commercial-scale HTS motors by the Department of Energy to the Company and Reliance Electric Company (a Rockwell Automation business). The Company expects to receive approximately $7.3 million over the next five years (including the year ended March 31, 1997) and Reliance expects

to receive $2.9 million, with each company investing a corresponding amount of their own funds to bring the total program value to $20.5 million.

The Company's total operating expenses in fiscal 1997 were $23,345,000 compared to $21,796,000 in fiscal 1996. At the Former ASC, operating expenses increased to $18,035,000 in fiscal 1997 from $15,992,000 in fiscal 1996. Costs of revenue, which include costs of research and development contracts and costs of prototypes and prototype development contracts, increased to $7,508,000 in fiscal 1997 compared to $7,331,000 in fiscal 1996 at the Former ASC. This increase reflects expenditures to support the increase in contract and prototype development revenues, including the hiring of additional personnel and purchases of materials and equipment, partially offset by lower costs of revenue associated with the decreased sales of prototypes.

At SI, operating expenses decreased to $5,310,000 in fiscal 1997 from $5,804,000 in fiscal 1996. SI's costs of revenue decreased to $3,070,000 in fiscal 1997 from $4,222,000 in fiscal 1996. Included in costs of revenue are write-down provisions of $445,000 and $1,175,000 in fiscal 1997 and fiscal 1996, respectively. These provisions were required to adjust the carrying values of certain items of inventory and equipment to their market values.

R&D expenses increased to $8,477,000 in fiscal 1997 from $5,704,000 the prior year. The Former ASC's R&D expenses were $7,709,000 in fiscal 1997 compared to $5,341,000 in fiscal 1996. This increase was due to the continued scale-up of the Former ASC's internal research and development activities including the hiring of additional personnel and purchases of materials and equipment. In addition to these expenses, a portion of the Former ASC's R&D expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as R&D expenses). These R&D expenditures that were included as costs of revenue during fiscal 1997 and fiscal 1996 were $5,322,000 and $5,256,000, respectively. Additionally, R&D expenses that were offset by cost share funding were $879,000 and $584,000 in fiscal years 1997 and 1996, respectively. At SI, R&D expenses increased from $363,000 in fiscal 1996 to $769,000 in fiscal 1997 because a higher proportion of R&D expenses were classified as costs of revenue. This classification was a result of the higher funding by the government cost-plus-fixed-fee contract in fiscal 1996 due to the completion of the contract during fiscal 1997.

SG&A expenses were $4,291,000 in fiscal 1997 as compared to $4,538,000 in fiscal 1996. At the Former ASC, SG&A expenses decreased to $2,818,000 in fiscal 1997 from $3,319,000 in fiscal 1996. This was primarily the result of certain SG&A expenditures that were offset by the increased funding received under cost sharing agreements. The SG&A amounts offset by cost share funding at the Former ASC were $828,000 and $378,000 in fiscal years 1997 and 1996, respectively. SI's SG&A expenses increased from $1,219,000 in fiscal 1996 to $1,472,000 in fiscal 1997. This increase was principally due to an increase in selling expenses, primarily relating to the hiring of additional sales and marketing personnel to support the South African market and SI's expanding line of commercial products. In addition to these expenses, a portion of the Former ASC's SG&A expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as SG&A expenses). SG&A expenditures included as costs of revenue during fiscal 1997 and fiscal 1996 were $2,186,000 and $2,075,000, respectively.

Interest income decreased to $1,177,000 in fiscal 1997, as compared to $1,585,000 in fiscal 1996. This decrease primarily reflects lower cash, cash equivalents and long-term marketable securities balances available for investment as a result of cash being used to fund the Company's operations and to purchase capital equipment. Interest expense increased from $215,000 in fiscal 1996 to $356,000 in fiscal 1997 primarily due to SI's $1,200,000 convertible debenture financing. Other expense, net is comprised primarily of miscellaneous taxes net of gains on the disposition of excess capital equipment.

Merger related fees of $710,000 in fiscal 1997 related to the costs incurred through March 31, 1997 in connection with the Company's acquisition of SI, and consisted primarily of financial advisory and legal fees. In fiscal 1997 SI incurred professional fees relating to a terminated merger negotiation amounting to $670,000.

FISCAL YEARS ENDED MARCH 31, 1996 AND MARCH 31, 1995

Total revenues increased to $10,764,000 in fiscal 1996 from $8,593,000 in fiscal 1995. The Former ASC's revenues from R&D contracts, prototype development contracts and the sale of prototypes increased to $7,131,000 in fiscal 1996 from $4,270,000 in fiscal 1995. This increase was due primarily to the expansion of the corporate development contract with Pirelli and an increase in sales of prototypes. This increase was partially offset by the completion of work and related funding under a collaborative research and development agreement in August 1994.

The Former ASC also received funding of $985,000 in fiscal 1996 under government cost-sharing agreements as compared to $2,866,000 in fiscal 1995. This lower level of cost-sharing funding was primarily due to a decrease in work performed under several cost-sharing contracts with the Department of Energy and the Department of Commerce which were completed during fiscal 1996. This funding was recorded as an offset to research and development and selling, general and administrative expenses, as required by government contract accounting guidelines, rather than as revenue.

At SI, revenues decreased from $4,323,000 in fiscal 1995 to $3,633,000 in fiscal 1996. This decrease was attributable to lower revenues recognized on the cost-plus-fixed-fee contract ($3,356,000 in fiscal 1995 compared to $2,575,000 in fiscal 1996).

The Company's total operating expenses in fiscal 1996 were $21,796,000, compared to $17,267,000 in fiscal 1995. At the Former ASC, operating expenses were $15,992,000, compared to $11,887,000 in fiscal 1995. Costs of revenue at the Former ASC, which include costs of R&D contracts and costs of prototypes and prototype development contracts, increased to $7,331,000 in fiscal 1996 compared to $4,397,000 in fiscal 1995. This increase reflects expenditures to support the increase in sales of prototypes, including the hiring of additional personnel and purchases of materials and equipment.

At SI, operating expenses increased from $5,379,000 in fiscal 1995 to $5,804,000 in fiscal 1996. This increase was primarily due to two factors affecting cost of revenue in fiscal 1996. These were a write-down of inventory and equipment that amounted to $1,175,000 which was partially offset by a decrease in other costs of revenue of $550,000 primarily resulting from the reduction in revenue from the government cost-plus-fixed-fee contract.

R&D expenses increased to $5,704,000 in fiscal 1996 from $5,349,000 the prior year. This increase was due to the continued scale-up of the Company's internal research and development activities including the hiring of additional personnel and purchases of materials and equipment. In addition to these expenses, a portion of R&D expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as research and development expenses). R&D expenditures included as costs of revenue during fiscal 1996 and fiscal 1995 were $5,256,000, and $3,032,000, respectively. Additionally, R&D expenses that were offset by cost share funding were $584,000 and $1,673,000 in fiscal years 1996 and 1995, respectively.

SG&A expenses were $4,538,000 in fiscal 1996 as compared to $3,924,000 in fiscal 1995. This increase reflects increased staffing, recruiting costs, and legal costs associated with the signing of several corporate development agreements and other expenses necessary to support the overall increase in the Company's revenues, sales and marketing programs and internal research and development activities. In addition to these expenses, a portion of SG&A expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as SG&A expenses). SG&A expenditures included as costs of revenue during fiscal 1996 and fiscal 1995 were $2,075,000 and $1,365,000 respectively. The SG&A amounts offset by cost share funding were $378,000 and $956,000 in fiscal years 1996 and 1995, respectively.

Interest income decreased to $1,585,000 in fiscal 1996 as compared to $1,873,000 in fiscal 1995. This decrease primarily reflects lower cash, cash equivalents and long-term marketable securities balances available for investment as a result of cash being used to fund the Company's operations and to purchase capital equipment. Other expense, net is comprised primarily of miscellaneous taxes net of gains on the disposition of excess capital equipment.

LIQUIDITY AND CAPITAL RESOURCES

At December 31, 1997, the Company had cash, cash equivalents and long-term marketable securities of $9,717,000 compared to $16,031,000 at March 31, 1997. Principal uses of cash during the nine months ended December 31, 1997 were the funding of the Company's operations and the acquisition of capital equipment, primarily for research and development and manufacturing. In addition, approximately $4,400,000 was used to pay the investment banking and legal fees associated with the Company's April 8, 1997 acquisition of SI and the retirement of various SI liabilities. This decrease in cash was partially offset by a $10,000,000 equity investment in the Company on April 7, 1997 by a subsidiary of EDF.

The Company believes that several years of further development will be necessary before HTS wires and related products are available in significant quantities for commercial power applications. The Company believes, based upon its current business plan, that the proceeds of this offering, together with its current cash and marketable securities, should be sufficient to fund the Company's operations as planned for at least the next three years. However, the Company may need additional funds sooner than anticipated if the Company's performance deviates significantly from its current business plan or if there are significant changes in competitive or other market factors. There can be no assurance that such funds, whether from equity or debt financing, development contracts or other sources, will be available, or available on terms acceptable to the Company. If adequate funding is not available, the Company may be required to reduce, delay or eliminate certain research and development, marketing or manufacturing activities or to license or sell to others certain proprietary technology, which could delay, either temporarily or permanently, the development and commercialization of certain products and technologies currently under development by the Company.

The Company has analyzed the computer systems and related applications of the Company and its subsidiaries to assess the expected impact of the Year 2000 date recognition issue on these systems and applications. Certain systems will need to be updated in order to be prepared for the Year 2000 issue, and the Company anticipates this process will be completed by the end of fiscal 1999. The Company does not anticipate that the costs associated with this updating or with the Year 2000 issue will have a material adverse effect on the financial condition or results of operations of the Company.

To date, inflation has not had a material impact on the Company's financial results.

BUSINESS

American Superconductor Corporation is an industry leader in developing, manufacturing and marketing products utilizing superconducting materials for electric power applications. Electrical products that incorporate superconducting wires can be more efficient, compact and cost effective than those utilizing conventional copper wires. Products incorporating superconducting materials are currently utilized in the medical, electronics, power equipment and transportation industries.

Superconducting wires provide significant advantages over conventional copper wires because superconducting wires conduct electricity with little or no resistance and associated energy loss, and can transmit much larger amounts of electricity than conventional wires of the same size. The Company's development and commercialization efforts have been focused on electrical products and equipment utilizing superconductors for use in the electric power industry. According to industry sources, it is estimated that in the year 2010, worldwide products based on superconductors that are sold to the electric power industry will generate approximately $12 billion of revenues.

SUPERCONDUCTIVITY

A superconductor is a perfect conductor of electricity; it carries direct current with 100% efficiency because no energy is dissipated by resistive heating. Once induced in a superconducting loop, direct current can flow undiminished forever. Superconductors can also conduct alternating current, but with some slight dissipation of energy.

Superconductors lose all resistance to the flow of direct electrical current and nearly all resistance to the flow of alternating electrical current when cooled below a critical temperature, which is different for each superconducting material. Superconducting materials known today, including both HTS and LTS materials, need to be cooled to cryogenic temperatures in order to exhibit the property of superconductivity, as illustrated in the following graph.

[SUPERCONDUCTIVITY GRAPH]

This graph illustrates the complete loss of resistance to the flow of electricity through wires of an LTS material (niobium-titanium alloy) and an HTS material (bismuth-based, copper oxide ceramic) at the critical temperature, T(c), which is different for each superconducting material. The specific HTS material in this chart has no electrical resistance below 108K (-265 degrees F), as opposed to the specific LTS material in this chart, which has no electrical resistance below 10 K (-441 degrees F).

A combination of three conditions must actually be met for a material to exhibit superconducting behavior:

- The material must be cooled below a characteristic temperature, known as its superconducting transition or critical temperature (T(c));

- The current passing through a given cross-section of the material must be below a characteristic level known as the critical current density (J(c)); and

- The magnetic field to which the material is exposed must be below a characteristic value known as the critical magnetic field (H(c)).

These conditions are interdependent, and define the environmental operating conditions for the superconductor, as shown in the following graph.

[SUPERCONDUCTING GRAPH]

Not only must a superconducting material be cooled below its critical temperature, T(c), to lose all resistance to the flow of electricity, but also the amount of current flowing through a given cross sectional area of superconducting wire must not exceed a critical amount, the critical current density, J(c), and the magnetic field to which the superconductor is exposed must not be above a critical level, H(c). The key focus of the Company's HTS development program is to increase the critical current density of its wires through research advancements and through optimization of its wire manufacturing methodologies.

The initial discovery of superconductive materials was made in 1911. Before 1986, the critical temperatures for all known superconductors did not exceed 23 Kelvin (23K or -418 degrees Fahrenheit; 0 K is absolute zero, or - -459 degrees Fahrenheit). Before the discovery and development of HTS materials, the use of superconductivity had not been practical for widespread commercial applications, except for magnetic resonance imaging ("MRI") and SMES applications, principally because commercially available superconductors (i.e., LTS materials) are made superconductive only when these materials are cooled to near 0 K. Although it is technologically possible to cool LTS materials to a temperature at which they become

superconductive, broad commercialization of LTS materials has been inhibited by the high cost associated with the cooling process. For example, liquid helium, which can be used to cool materials to about 4K (-452 degrees Fahrenheit), and which has been commonly used to cool LTS materials, is expensive and relatively costly to maintain.

In 1986, a breakthrough in superconductivity occurred when two scientists, Dr. K. Alex Muller, who is currently under contract as a consultant to the Company, and Dr. J. Georg Bednorz, at an IBM laboratory in Zurich, Switzerland, identified a ceramic oxide compound which was shown to be superconductive at 36K (-395 degrees Fahrenheit). This discovery earned them the Nobel Prize for Physics in 1987, which is one of the four Nobel Prizes that have been awarded for work on superconductivity. A series of related ceramic oxide compounds which have higher critical temperatures were subsequently discovered, including those being used by the Company.

APPLICATIONS AND MARKETS FOR SUPERCONDUCTORS

Wire is an integral component of most products that transmit, transfer or utilize electricity. Superconducting wires provide significant advantages over conventional wires because superconducting wires conduct electricity with little or no energy loss, which enables them to transmit much larger amounts of electricity than conventional wires of the same size. These underlying characteristics lead to the potential for more efficient, smaller and lighter electrical products and equipment, such as motors, generators, power transmission cables, and transformers. Deregulation of the electric power industry, which is an increasing trend in the United States and certain other countries, may enhance the potential market for superconducting wires by providing opportunities in markets that were not previously open to the Company.

Because the superconducting wire in a coil of this material exhibits no resistance to the passage of electrical current, large amounts of electricity can be stored in coils of superconducting wire, and because the wire coil has no electrical resistance, the stored electricity can be removed from the coil very rapidly. These features provide the basis for the Company's line of LT-SMES power quality products, which are currently being sold or leased to industrial users of power to prevent factory downtime and loss of "work in process" caused by momentary dips in voltage that occur in power distribution networks.

LTS products are used in a number of applications, including MRI diagnostic equipment, which currently represents the single largest commercial use of LTS materials, commercial magnetic separation equipment, commercial SMES power quality products, commercial laboratory electromagnets and electromagnets used in particle accelerators. The Company's development efforts with respect to LTS products are focused on commercial SMES power quality products. LTS products have been under development since the early 1960s and LTS technology is relatively mature as compared with HTS technology. However, commercial acceptance of LTS products in power applications other than SMES systems has been significantly limited by the cooling requirements of LTS materials. LTS materials generally require costly cooling by liquid helium at nearly the absolute zero temperature or cooling by cryocoolers below 10 K (-441 degrees Fahrenheit).

In contrast, HTS wires maintain their superconductivity at higher temperatures than LTS wires. They can be cooled with liquid nitrogen or closed-cycle refrigerators at temperatures above 20 K (-423 degrees Fahrenheit), which are much less expensive and easier to utilize than liquid helium. Closed-cycle refrigerators operate in much the same way as household refrigerators, but because of their lower operating temperature they are somewhat more complicated to build and maintain. Specially designed closed-cycle refrigerators have been used by the Company to cool a variety of commercial and developmental HTS electromagnets. It is presently anticipated that HTS power cables would be cooled by maintaining liquid nitrogen within hollow cores of an HTS cable, and/or by flowing liquid nitrogen around the power cables, much the same as oil is now maintained within the cores of some conventional underground power cables and used to cool power cables maintained within steel pipes under the streets of cities.

The Company anticipates that HTS motors and generators would be cooled by cryocoolers, without the presence of a liquid cryogen, such as liquid nitrogen. However, it is anticipated that HTS transformers would be cooled by submerging the HTS coils in liquid nitrogen, with the nitrogen maintained at temperature by a

closed cycle refrigerator. In this application, the liquid nitrogen acts both as a coolant and as an electrical insulating medium, or dielectric. Therefore, HTS products may replace or compete with LTS products in certain applications in which LTS products are currently used and the Company believes that the less demanding cooling requirements of HTS materials will permit their use in a broad range of applications not currently available to LTS products.

The Company is currently focusing on two markets for superconductivity products: the industrial power quality market, for which the Company currently manufactures and markets commercial industrial power quality systems and services; and the market for other electric power products, for which the Company is currently developing a number of HTS products.

Industrial Power Quality Systems and Services

The Company has focused initially on SMES systems as its product platform to address the need for solutions for industrial power quality problems, which industry sources estimate cost U.S. industry alone more than $10 billion per year in factory downtime. Protection against power quality problems such as momentary (typically less than two seconds) voltage sags can provide significant economic value to large industrial users of power. SMES systems are designed to protect industrial customers from the adverse effects of voltage sags by releasing large quantities of power within a fraction of a cycle to normalize the degraded incoming power supply. It is estimated that more than 80% of all power quality events, including brownouts and blackouts, are less than two seconds in duration. With large energy storage capacities and fast recharging capabilities, SMES systems can provide a solution to momentary aberrations in power quality.

In April 1997, the Company acquired SI, a manufacturer of SMES power quality systems based on LTS electromagnets. The Company believes that this acquisition provides it with a strong presence in the industrial power quality market, and will allow it to accelerate its plan to penetrate this sector of the market. The Company is currently expanding sales and marketing and manufacturing capacity for its existing SMES-based power quality products. The Company also plans to expand its current SMES product line and to introduce HT-SMES products within three to five years. The Company is also incorporating its HTS current leads product into its LT-SMES products in order to reduce systems manufacturing costs and to improve the efficiency of operation of the LT-SMES products.

The Company introduced two commercial SMES-based products in calendar year 1997. Both are designed to provide instantaneous boosts in voltage, either within individual pieces of electrical equipment, such as motor drives, or to power lines supplying industrial users of power, in both cases to prevent factory downtime caused by momentary dips in voltage that occur in distribution power networks. The Company also has units at customer sites that are designed to prevent factory downtime and lost work in process caused by momentary (typically less than one to two seconds) outages (a dip in voltage to zero), which also occur on power distribution networks. The Company has sold or leased nine SMES units, which are currently located at customer sites in the United States and in South Africa.

The Company is developing multiple channels to market for its power quality products, including, but not limited to, distributors, OEMs and direct sales. The Company has a distribution agreement with Eskom, the largest utility in Africa, to distribute the Company's power quality products exclusively in South Africa.

The Company currently offers a service component of its industrial power quality business that assesses the power quality needs of industrial sites, and provides extended warranties. The Company plans to expand this portion of its industrial power quality business area.

HTS Electric Power Products

HTS electric power products under development include power transmission cables, motors, transformers, generators and SMES systems. The Company's development efforts for this market segment are focused on HTS wires and products made from these wires, such as electromagnetic motor coils integrated with appropriate cryogenic cooling systems. The Company's revenues in this business area currently come primarily from research and development contracts, including governmental contracts, prototype sales and funds from

corporate partners Pirelli, EDF and ABB. See "Business -- Strategic Relationships, Research Arrangements and Government Contracts."

The Company has produced and sold prototype HTS wires and electromagnetic coils for use in several development and demonstration programs. Nevertheless, significantly better strength, flexibility, and electrical performance need to be achieved, over longer wire lengths, and at lower costs, for the commercialization of HTS wire and wire products to be successful. Despite the advances being made, to date neither the Company nor, to the Company's knowledge, any other company has produced HTS wires in commercial quantities adequate for the electrical equipment market, and hurdles to commercialization continue to exist.

The Company's strategy is to develop its HTS products through a combination of internally funded and customer-, and government-sponsored programs, as well as through other research programs, and to market these products through strategic partners or directly through its sales and marketing organization. In addition to its strategic alliances with Pirelli, EDF and ABB, the Company has established research arrangements with several US National Laboratories and with Industrial Research Limited, and is currently a party to development contracts with several U.S. government agencies to build prototype HTS electromagnetic coils. As the Company develops HTS electric power applications and industrial power quality systems and services, it expects to continue to pursue strategic acquisitions to enhance its market position, add value to its product line and strengthen its technology base. In April 1997, the Company acquired SI in order to establish a presence in the industrial power quality market; in July 1997, the Company acquired AET in order to strengthen it core capabilities in cryogenic engineering. The Company has sold several prototype HTS products to private-sector companies, including HTS wires to ABB Secheron SA and Pirelli, HTS motor coils to Rockwell Automation, an HT-SMES system to E.-U.-S. GmbH of Germany, and an HTS accelerator magnet system to Alphatech International. It has also sold HTS coils to U.S. government laboratories, including HTS generator coils to Wright-Patterson Air Force Base, and a high field (7 Tesla) research magnet to the Naval Research Laboratory. The Company is selling HTS current leads commercially to a variety of customers including MRI manufacturers and particle accelerator laboratories.

If the Company is successful in developing its HTS technology for commercial applications, the Company intends to bring the following product lines to market in the next several years.

Wires for Power Transmission Cables. In cooperation with Pirelli, the Company is developing HTS wires for underground HTS cables designed to provide more efficient and economical ways for utilities to transmit power. Underground power cables using HTS wires have the potential to carry two to five times more power than cables of the same size made from copper wires. The use of HTS wires would therefore result in more efficient transmission, more effective use of existing rights of way, reduced environmental stress and cost-effective replacement of worn-out infrastructure. This is very attractive both to urban planners who need to retrofit aging infrastructures with increased power capacity and to suburban engineers who find it increasingly difficult to secure clearance for overhead transmission lines. At least two underground copper cables are required to replace one equally rated overhead transmission line, whereas a single HTS cable could replace one equally rated overhead line. Moreover the liquid nitrogen used to cool underground HTS cables is less expensive and presents less environmental risks than the oil used to cool copper cables. The Company expects that the first significant demonstration of utility networks utilizing HTS-based power transmission cables will occur in 2000 and that the first sales of its HTS wire for such applications will occur in 2001.

Coils for Motors and Generators. The Company is designing, developing and fabricating HTS rotor coils and cryocoolers for use in high-horsepower electric motors with the potential for use in industrial and utility applications. HTS motors utilizing these rotor coils are expected to be half the weight and size of conventional motors and would provide greater operating efficiency. Since industrial electric motors consume most of the electricity used in a typical manufacturing operation, increased efficiency should yield significant savings in power costs. The Company and Reliance Electric Company, a Rockwell Automation business, are developing 1,000 and 5,000 horsepower (hp) motors under a U.S. Department of Energy Superconductivity Partnership Initiative. The Company expects the 1,000 hp motor to be in initial laboratory tests in early 1999 and to be installed in an industrial site during the second half of 1999. The Company expects that the first sales of its HTS rotor coils and cryocoolers for these motors for commercial applications will occur in 2001.

Cables for Transformers. In cooperation with ABB, one of the largest transformer supplier in the world, and EDF, the Company is developing alternating current HTS transformer wire that can be used for fabrication of HTS transformers. Utilities and industrial power customers use transformers to increase and decrease voltage levels. HTS transformers are expected to offer a number of improved features relative to conventional transformers as well as entirely new functionality with important utility systems benefits. HTS transformers are expected to be half the size and weight of conventional transformers, which would increase existing substation capacity, reduce land area needed for new substations, and greatly relieve transportation challenges currently faced by electric utilities for conventional transformers. In addition, HTS transformers would replace the dielectric oil which surrounds the copper coils in today's power transformers with low-cost, environmentally-safe liquid nitrogen, which would eliminate the spill risks associated with dielectric oil. This is expected to lower associated insurance costs and allow transformers to be installed closer to large load centers even within large cities. The Company expects that the first sales of its HTS transformer wires or cables for commercial applications will occur in 2002.

In addition to the products described above, the Company plans to develop fault current limiters, which would instantaneously protect a power grid from electric surges caused by lightning, short circuits and other common fluctuations. If this product development is successful, the Company may manufacture and sell fault current limiter systems. The Company expects that the first sales of this product for commercial applications will occur in 2002.

Ultimately, if successful in developing HTS technology for commercial power transmission and distribution products and equipment, the Company intends to introduce and market these HTS products primarily through strategic partners and original equipment manufacturers ("OEMs"). However, there can be no assurance that the Company will be successful in overcoming the technological hurdles to the development of these products or that it will be able to successfully market and sell any products developed.

HTS DEVELOPMENT

Since its inception, the Company's main efforts have been directed towards the development of HTS wire and its applications, primarily in the electric power sector, including electric utilities and industrial users of electric power. In late 1987 the Company developed its first length of current-carrying HTS wire. In 1989 the Company added electromagnetic coils, electromagnets and multistrand conductors to its development program, and in December 1989 the Company sold its first prototype coil to a commercial customer. Since commencing operations in 1987, the Company has been able to significantly increase both the length and the current-carrying capacity of its HTS wires as well as the magnetic field strength generated by its HTS electromagnetic coils.

The Company has chosen to focus on HTS wires and HTS wire products (rather than HTS electronics applications) because it believes that HTS wires and wire products offer the largest potential commercial market in the HTS field. The Company is not devoting any efforts to the discovery of new HTS materials. The Company primarily focuses on processing the most promising of the HTS materials available into wires and from these wires, manufacturing components and subsystems, such as multistrand conductors, electromagnetic coils and electromagnets. In some cases, higher level integration is performed in collaboration with or by the Company's customers and/or strategic partners. In other cases, the Company itself integrates these subsystems into a full cryogenic and electrical system, using its cryogenic and power electronics expertise.

The Company has obtained patent licenses for a number of HTS materials. The Company expects to be required to obtain additional licenses with respect to these or other known HTS materials. In addition, as new HTS materials are discovered, the Company expects that patent or other proprietary rights will be asserted with respect to such materials, and that the Company may be required to obtain licenses for the use of such materials. While the Company is optimistic that it will be able to obtain such licenses, there can be no assurance of this, and even if such licenses can be obtained the costs of obtaining such licenses may be substantial. See "Business -- Patents, Trade Secrets and Licenses -- Patents and the Choice of HTS Materials." Furthermore, the Company's ability to apply its wire processing and component and subsystem manufacturing processes to newly discovered HTS materials will depend on the nature of the materials,

although the Company believes that its manufacturing processes are sufficiently generic that they can be adapted to newly discovered HTS materials.

STATUS OF HTS WIRE DEVELOPMENT

During the last several years considerable progress in the development of HTS wire has occurred, both at the Company and at other institutions and companies worldwide. There remain, however, significant technical hurdles that will need to be overcome before HTS wires can be produced in commercial amounts for the full range of potential applications. For commercial applications, the critical current density of long wire lengths will need to be increased further from present levels to higher levels already demonstrated on short-length research samples. In addition, the wire will need to be able to be wound in a variety of shapes to create multistrand conductors, electromagnetic coils and electromagnets without loss of the wire's critical current density during winding. The wire also will need to be able to withstand forces arising from the interplay of its own current with a surrounding magnetic field. For alternating current magnet and coil applications, special conductor architectures will need to be developed. The Company has recently announced a significant program in collaboration with ABB and EDF to develop such architectures.

The HTS wires used in the electromagnetic coils, electromagnets and multistrand conductors will need to have critical current densities in the superconducting filament of the wires (excluding any metal sheathing, strengthening members, etc.) in the range of 30,000 to 100,000 Amperes per square centimeter (A/cm(2)) in the magnetic field required for the application. Most applications will require magnetic fields in the range of 0.1 to 5 Tesla (a typical LTS magnet in an MRI system operates at about 0.5 to 1.5 Tesla; a kitchen magnet typically has a magnetic field of less than 0.05 Tesla).

Research samples of HTS wires have already exhibited sufficient current density in very high magnetic fields to enable applications to be developed. The Company has reported that short lengths of multifilamentary HTS wires (typically one centimeter) produced on a laboratory scale have filament critical current densities of 100,000 A/cm(2) in a magnetic field of up to 3 Tesla at 20 K (-423 degrees Fahrenheit). The challenge is to produce cost effective wires with these electrical properties by high-volume manufacturing processes in long lengths (typically greater than 10,000 feet) and with the flexibility, strength and durability required to fabricate and utilize multistrand conductors, electromagnetic coils and electromagnets in end-use applications.

The Company has made considerable progress in achieving these combined goals; it routinely manufactures wire in greater than five-hundred-foot lengths with over 10,000 A/cm(2) at 77K over the full cross-sectional area of the composite wire, with the actual current density in the superconducting filaments reaching three times this level. This represents an advance by a factor of two in performance of the Company's wires in the last two years. An earlier generation of the Company's wires was incorporated into a number of demonstration products. In 1996, Pirelli built and demonstrated a 50 meter cable conductor that carried 3,300 Amperes of direct current, and Rockwell Automation built and demonstrated a 286 horsepower HTS motor utilizing rotor coils fabricated by the Company. The Company's wire was also incorporated into an HTS transformer prototype built by ABB, which was installed in the headquarters building of the electric utility of Geneva, Switzerland and operated from approximately March 1997 to December 1997. However, considerable progress is still required to meet the commercial needs of electric power and high-field magnet customers. The Company believes that several years of further development will be necessary before HTS wires and wire products are available for significant commercial end-use applications, although HTS wires of sufficient performance are now available for the Company's commercial current leads.

In addition to the technical hurdles described above, there are energy losses when alternating current is employed in a superconductor (as opposed to the zero loss that occurs when the superconductor carries direct current), and it has been established in LTS wires that these losses can be reduced in a multifilamentary configuration. While the Company has produced prototype multifilamentary composite wires, the superconducting and mechanical properties of such wires will need to be improved before they can be used for commercial alternating current magnet applications. The Company has been engaged in a research and development program, with partial funding of this program coming from both EDF and ABB, to develop wires specifically for these applications. However, there can be no assurance that the Company will succeed in

developing this technology for commercial use. The Company has applied for patents on its developments in this area. However, the Company may be required to obtain patent licenses from third parties in order to utilize certain aspects of this technology. While the Company is optimistic that it will be able to obtain such licenses, there can be no assurance of this, and if such licenses can be obtained, the license fees may be substantial. See "Business -- Patents, Trade Secrets and Licenses."

THE COMPANY'S HTS COIL, MAGNET, CONDUCTOR, CRYOINTEGRATION AND POWER ELECTRONICS DEVELOPMENT

Simultaneously with its development of HTS wires, the Company is engaged in the development of electromagnetic coils, electromagnets and alternating current cables using these wires, and the integration of these products with related cooling systems (known as "cryointegration"). Electromagnetic coils are wire-wound structures such as those used in the rotors or stators of electric motors; electromagnets are coils used to produce a magnetic field, such as that required for MRI. Alternating current cables are bundles of HTS wires woven together to form a long conducting body, such as that needed for alternating current applications such as power transformers.

The Company's HTS prototype coils, electromagnets and conductors are made from multifilamentary wires. This form of wire, which is more flexible and durable than single filament wires that contain the same amount of superconductor, can permit winding with no further high temperature heat treatment being required (referred to as the "react and wind" method). The Company believes that this approach permits more versatile application of its wires to a variety of prototypes, although the alternative method, the "wind and react" technique, may be appropriate in certain circumstances. The "wind and react" technique, which can also use multifilamentary wires, means that an additional heat treatment is required after winding a coil, electromagnet or cable. Both techniques are being utilized by the Company.

The Company has demonstrated increasingly advanced prototypes of electromagnetic coils and multistrand conductors, including an electromagnet that produces a magnetic field of 7 Tesla at 27K (-411 degrees Fahrenheit) when cooled by a mechanical cryocooler, which magnetic field exceeds significantly the maximum field (2 Tesla) obtainable from iron. The principal hurdle to increased commercial use of this technology is to lower the cost of the system. The Company believes that this can be achieved through the development of more efficient manufacturing systems for its coils, cryogenics and systems integration, and through the further reduction in the cost of HTS wire. Longer term, the Company believes that the introduction of HTS coated conductor wire will lead to more significant cost reductions.

The Company has also developed and is selling current leads that incorporate the Company's multifilamentary wires, and which, as compared to normal metal current leads, reduce the heat leak into, and the heat generated in, cryogenic systems operating at temperatures below 77K (-321 degrees Fahrenheit).

The Company is also developing improvements to its SMES-based industrial power quality products and enhancing and expanding its SMES product line. It is working to decrease the cost of these products by introducing HTS current leads to simplify the cryogenic system, by improving the cryostat and by upgrading the magnet design. It is also seeking to expand the functionality of these products by developing new power electronics to provide higher voltage capability and dc-to-ac conversion, and to reduce the costs of the power electronics components of the SMES products. There can be no assurance that the Company will succeed in reducing the costs of SMES systems sufficiently to create a significantly larger market.

HTS WIRE PRODUCTION PROCESSES

The Company produces HTS wires by a variety of techniques. The principal technique involves deformation processing, which is in some respects closely analogous to the technique used in the existing metal wire industry. In this approach a metal tube, typically silver, is packed with a precursor powder and sealed to form a "billet." The billet is then deformed into a wire shape by a variety of classical deformation processing techniques: extrusion, wire-drawing, multifilamentary bundling and rolling. Finally, the wire is heat-treated to transform the precursor powder inside the wire into a high-temperature superconductor. The resulting multifilamentary composite structure, consisting of many fine superconducting filaments imbedded in a metal matrix, is considered by the Company to be a preferred method of achieving flexibility and durability

in its wires and wire products. This composite structure is the subject of a patent owned by MIT, based on an invention by Dr. Yurek and Dr. Vander Sande, which patent is licensed to the Company on an exclusive basis until 2010 in return for license fees and shares of the Company's Common Stock. See "Business -- Patents, Trade Secrets and Licenses."

The Company has pursued two basic approaches to the deformation processing of silver-sheathed, powder-in-tube, multifilamentary composite wires. They differ principally in the type of powder that is packed into the silver billet. One, referred to as the oxide-powder-in-tube or "OPIT" process, involves the use of oxide powders. The Company is presently focused primarily on the OPIT process and has established a manufacturing line using this method. The manufacturing line has produced sufficient lengths of wire with sufficient performance to enable the Company to use the wire in commercial current lead products as well as in prototype electromagnetic coils and multistrand conductors and to permit other companies to demonstrate prototype HTS transformers, power cables and motors using the Company's HTS wires or coils.

In the alternative technique for making multifilamentary wires, referred to as the metallic precursor or "MP" process, metallic (rather than oxide) powders are packed into the silver billet. While the Company is not manufacturing HTS wire by this methodology at the present time, it continues to use the technology in certain of its wire development programs.

Precise control of initial composition, heat-treatment temperatures and their interplay with the deformation are required to obtain the best superconducting performance of the wire material. The Company has protected many aspects of its processes with patents. However, the Company expects to be required to obtain patent licenses from third parties in order to utilize certain aspects of these processes. While the Company is optimistic that it will be able to obtain such licenses, there can be no assurance of this, and even if such licenses can be obtained, the license fees may be substantial. See "Business -- Patents, Trade Secrets and Licenses."

Within the past few years, very high levels of current carrying performance have been reported in small laboratory samples of HTS "coated conductors," which comprise a thick film of HTS material deposited on a flexible substrate, typically with an intermediate buffer layer. One variation of this process is called IBAD, or ion beam assisted deposition. In this process, thick films of HTS material are deposited on an aligned buffer layer (the IBAD layer) which is placed on a flexible substrate. This process improves the alignment of the HTS thick films and consequently their electrical performance. Initially developed by Fujikura Ltd., the Company believes that this process has been significantly improved by Los Alamos National Laboratory.

Another variant of coated conductor, called deformation texturing of substrates, has been developed by Toshiba Corporation and significantly improved by Oak Ridge National Laboratory (whose trademark for their version of this process is "RABiTS"). The Company has studied both processes and believes that these processes have the potential to be future processes for manufacturing HTS wire with high current carrying capacity and lower cost than composite deformation-processed wire. The Company is pursuing the development of these processes with an active internal program in collaboration with EPRI, Los Alamos National Laboratory, MIT and other organizations. However, only short coated conductor wire samples have been fabricated at high-performance levels, and there can be no assurance that the Company will succeed in developing this technology for commercial use. The Company has applied for patent protection on many aspects of its preferred coated conductor process. However, the Company may be required to obtain patent licenses from third parties in order to utilize the process. While the Company is optimistic that it will be able to obtain such licenses, there can be no assurance of this, and even if such licenses can be obtained, the license fees may be substantial. See "Business -- Patents, Trade Secrets and Licenses."

COMPETITION

The Company does not know of any companies currently selling LT-SMES products that compete with the SMES products offered by the Company. However, at least one company, IGC, is developing SMES systems for power quality applications, and the Company believes there is a government-sponsored program in Japan to develop SMES systems for power quality applications. The Company's SMES products also compete against dynamic voltage restorers produced by companies such as Westinghouse, flywheels under development

by various companies around the world, and battery-based, uninterruptible power supply systems, which are widely manufactured and used around the world.

There are a number of companies in the United States, Europe and Japan engaged in attempts to bring to market high performance, technologically advanced, cost effective HTS products. However, to the Company's knowledge, no significant commercial amounts of HTS wire or other HTS products have been produced or sold to date. For HTS applications, the Company's principal competitors presently include several Japanese companies, such as Sumitomo Electric Industries, Ltd. ("SEI"), Hitachi, Ltd., and Furukawa Electric Co., Ltd.; several European companies, such as Siemens A.G. in Germany and B.I.C.C. and Oxford Instruments in England; and several companies in the U.S., such as IGC and 3M. Each of these companies is directing significant efforts to develop flexible, long-length HTS wires. SEI, Hitachi, Oxford and IGC are also developing HTS magnets and systems.

Many of the Company's competitors have substantially greater financial resources, research and development, manufacturing and marketing capabilities than the Company. In addition, as the power quality and HTS markets develop, other large industrial companies may enter these fields and compete with the Company.

STRATEGIC RELATIONSHIPS, RESEARCH ARRANGEMENTS AND GOVERNMENT CONTRACTS

The Company is party to a number of strategic relationships, research arrangements and government contracts. Its most significant strategic corporate agreements are with Pirelli, EDF and ABB.

The Pirelli alliance, originally established in February 1990, is designed to combine Pirelli's cable technology, manufacturing and marketing expertise with the Company's proprietary wire-manufacturing technologies for the purpose of developing and producing HTS wires for cables used to transmit both electric power and control signals. Under the Pirelli alliance, the Company has recorded as revenue $12.7 million from 1990 to December 31, 1997 and Pirelli has agreed to pay the Company an aggregate of $3.4 million over the next two years as "development fees;" however, this agreement may be terminated upon 90 days notice in certain circumstances. As of February 27, 1998, Pirelli owned approximately 1% of the Company's Common Stock.

The EDF relationship, established in April 1997, involves the exchange of information relating to developments in HTS technology and related fields and trends in the electricity industry, and the review of technical, industrial and commercial topics by the parties through an advisory board comprised of representatives from both the Company and EDF. The EDF relationship also includes a development program, in conjunction with ABB, on HTS wire for transformers. Under the EDF alliance, the Company received $10.0 million in 1997 from EDF as an equity contribution in exchange for 1.0 million shares of the Company's Common Stock, which represented, as of February 27, 1998, approximately 9% of the Company's outstanding Common Stock. EDF has agreed to pay the Company an aggregate of $5.0 million (of which $1.4 million has been recorded as revenue as of December 31, 1997) over the next four years as "development fees;" however, this agreement may be terminated upon 90 days notice by either party.

The ABB relationship is designed to combine ABB's transformer technology, manufacturing and marketing expertise with the Company's proprietary wire-forming technologies for the purpose of developing and producing HTS wires and cables for transformers. ABB has agreed to pay the Company an aggregate of $5.0 million (of which $2.0 million has already been recorded as revenue as of December 31, 1997) over the next four years as "development fees;" however, this agreement may be terminated upon 90 days notice by either party.

The Company has also established a number of collaborative research relationships with various organizations such as Industrial Research, Ltd., four U.S. Department of Energy laboratories, University of Wisconsin Applied Superconductivity Center, MIT and EPRI. Finally, the Company is party to a number of government contracts, with entities such as Wright-Patterson Air Force Base, the Naval Research Laboratory and the U.S. Department of Energy through its Superconductivity Partnership Initiative, relating to the development and supply of prototype products.

The Company believes strategic relationships, research arrangements and government contracts provide it with several important benefits. First, they assist the Company in meeting and exceeding the technical benchmarks. Second, they provide the Company with development and marketing rights to important technologies. Third, various parties to these arrangements provide the Company with critical funding as the Company's research and development efforts progress toward commercialization. Since April 1, 1993, the Company has received more than $30 million of funding under research and development contracts. Finally, and perhaps most importantly, several of these relationships, particularly those with Pirelli and ABB, provide a potential direct market for the Company's HTS wires.

PATENTS, TRADE SECRETS AND LICENSES

The HTS Patent Background

Since the discovery of high temperature superconductors in 1986, the HTS industry has been characterized by rapid technical advances, which in turn have resulted in a large number of patents relating to superconductivity being applied for and granted worldwide. The claims in different granted patents often overlap, and similar patents in different countries may have different claims or be owned by different entities. As a result, the patent situation in the field of HTS technology and products is unusually complex.

Most major potential HTS manufacturers, including the Company and its competitors, own or may obtain patents which may interfere with each other. A number of United States and foreign patents and patent applications, held by third parties, relate to the Company's current products or to products under development, or to the technology now or later to be utilized by the Company in the development or production of certain present and future products. Additional patents relating to the Company's technology, processes or applications may be issued to third parties in the future. The Company will need to acquire licenses to, or to successfully contest the scope or validity of, patents owned by third parties.

The Company believes that companies holding patent portfolios which may complement portfolios held by others in the industry are more likely to be willing to enter into cross-licensing arrangements with such other patent owners than with companies that do not have such patent positions. The Company believes that the patents it has licensed from others covering basic materials processing methods, and composites of HTS ceramics and noble metals, will improve the strength of its patent portfolio and therefore its position in these future licensing negotiations. See "Business -- Patents, Trade Secrets and Licenses -- Patents and Wire Architecture."

However, many patents and patent applications are held by companies with which the Company may not compete, and such companies may not be interested in cross-licensing. Moreover, it is possible that the Company could be required to obtain licenses under a number of different patents and from a number of different patent holders in connection with various aspects of its present and planned business operations. Although the Company is optimistic that it will be able to obtain any necessary licenses on commercially reasonable terms, there can be no assurance that all necessary licenses will be available on commercially reasonable terms, or at all.

The cost of any such licenses is not known, but the Company is likely to be required to obtain multiple licenses and, to the extent that licenses can be obtained the cost is expected, in aggregate, to be substantial. The failure to obtain all necessary licenses upon reasonable terms could significantly reduce the scope of the Company's business, limit its profit margins, and otherwise have a material adverse effect on the Company's operations.

The likelihood of successfully contesting the scope or validity of any such patents is also uncertain; and, in any event, the Company could incur substantial costs in challenging the patents of other companies. Moreover, the Company could incur substantial litigation costs in defending the scope and validity of its own patents.

To understand the Company's approach to patents in light of these circumstances, it is useful to analyze HTS patents in relation to the issues the Company needs to consider in the process of designing and manufacturing HTS products: the choice of material used to make an HTS product; the choice of the

processing method to be applied to that material; and the choice of components or subsystems to be fabricated and the fabrication methods used.

Patents and the Choice of HTS Materials

Presently, the materials from which HTS products are made are copper oxides, or "cuprates." The Company does not anticipate that anyone will receive a broad basic patent on cuprates, but there can be no assurance in this regard. There are a number of HTS materials within the cuprate family. A number of patents have been issued with regard to certain specific HTS materials within the cuprate family and the Company believes that a number of other patent applications for various HTS materials within the cuprate family, some with broad claims, are pending.

At any given time, the Company will have a preference for utilizing one or a few specific HTS materials in the production of its products for commercial application, and any HTS material used by the Company is likely to be covered by one or more patents issued to other parties. Because of the number and scope of patents pending or issued in various parts of the world, the Company may be required to obtain multiple licenses to use any particular material.

The Company jointly owns or has obtained licenses with respect to patents covering certain HTS materials through its collaborations with MIT and Superlink. However, the Company expects that additional materials licenses may be required. There is no assurance that the Company will be able to obtain on commercially reasonable terms all the licenses that may be needed for the Company to use preferred HTS materials, and even if the Company is able to obtain such licenses, the license fees may be substantial.

Patents and the Processing of HTS Materials

The Company is concentrating on two main methods for processing the materials it currently intends to use: the OPIT method, and the "coated conductor" technology. See "Business -- HTS Wire Production Processes." The Company's strategy is to obtain a proprietary position in each of these processes through a combination of patents, licensing and proprietary know-how. If alternative processes become more promising in the future, the Company will also seek to develop a proprietary position in these alternative processes.

The Company has filed a number of patent applications which are applicable to one or more of the MP method, the OPIT method, and coated conductor technology. Some of these applications have been issued as patents in the U.S. and abroad while others are pending. The Company also has acquired options to exclusively license additional intellectual property in the coated conductor area through its collaborations with EPRI and MIT.

Additional U.S. and foreign patents have been issued to third parties with claims directed to HTS processing methods which, if valid, may cover one or more of the MP, the OPIT or the coated conductor technologies used by the Company. Several U.S. and foreign patents have been issued with claims which, if valid, may cover various aspects of the coated conductor process. In addition, the Company has learned that a number of additional U.S. and foreign patent applications have been filed which contain similar claims. To the extent any of these issued patents are valid and cover any processing methods used by the Company, or if any of the pending applications result in a valid patent with claims covering the Company's methods, the Company would be required to obtain licenses under any applicable patents. There is no assurance that the Company will be able to obtain such licenses, and even if such licenses can be obtained, the license fees may be substantial.

Patents and Wire Architecture

The Company has an exclusive license from MIT under an issued U.S. patent that covers composites (including multifilamentary wires) of HTS ceramics and noble metals such as silver.

A number of other companies have also filed, and in some instances, have been issued patents on various aspects of wire architecture. To the extent any of these issued patents are valid and cover the wire architectures used by the Company, or to the extent any of the pending applications result in a valid patent

with claims covering the Company's methods, the Company would be required to obtain licenses under any applicable patents. There is no assurance that the Company will be able to obtain such licenses, and even if such licenses can be obtained, the license fees may be substantial.

HTS Component and Subsystem Fabrication Patents; HTS Application Patents; Power Quality and SMES

The Company has been issued several patents and filed several additional patent applications regarding the design and fabrication of electromagnetic coils and electromagnets, the integration of these products with an appropriate coolant or cryocooler and the application of these products to certain specific end uses, as well as several patent applications on cryocooled power electronics. The Company holds several issued patents and pending applications on power quality systems as a result of the acquisition of SI.

Since the HTS and cryocooled power systems fields are relatively new, significant applications can and are being patented by others. A number of other companies have also filed, and in some instances have been issued, patents on various applications of HTS wire, cryocooled power electronics and component and subsystem fabrication methods. To the extent any existing or future third party patents are pertinent to these aspects of the Company's operations, the Company would be required to obtain licenses under the applicable patents. There is no assurance that the Company will be able to obtain such licenses, and even if such licenses can be obtained, the license fees may be substantial.

Trade Secrets

Some of the technology used in, and that may be important to, the Company's operations and products is not covered by any patent or patent application owned by or licensed to the Company. However, the Company takes steps to maintain the confidentiality of this technology by requiring all employees and all consultants to sign confidentiality agreements and limiting access to confidential information. However, no assurance can be given that these measures will prevent the unauthorized disclosure or use of such information. Further, there is no assurance that others, including the Company's competitors, will not independently develop the same or comparable technology.

EMPLOYEES

As of February 27, 1998, the Company employed a total of 212 persons, 24 of whom have Ph.D's in material science, physics or related fields. No Company employees are represented by a labor union. The Company believes that its employee relations are good.

PROPERTIES

The Company's operations are located in approximately 102,000 square feet of space in Westborough, Massachusetts, approximately 60,000 square feet of space in Middleton, Wisconsin and approximately 3,700 square feet of space in Woburn, Massachusetts. The Company occupies the Westborough facility under a lease which expires on May 31, 2003 and has an option to extend the lease for an additional five-year term. The Company occupies the Middleton facilities under two leases which expire on December 31, 2003. The Company occupies the Woburn facility under a lease which expires on January 30, 1999.

MANAGEMENT

The executive officers, certain significant employees and the directors of the Company are as follows:

NAME	AGE	OFFICE
Gregory J. Yurek.....	50	President, Chief Executive Officer and Chairman of the Board of Directors
Stanley Piekos.....	50	Vice President, Corporate Development, Chief Financial Officer, Treasurer and Secretary
Ross S. Gibson.....	39	Vice President, Human Resources
Paul F. Koeppe.....	47	Executive Vice President, Strategic Planning for Power Quality Solutions
Roland E. Lefebvre.....	46	Vice President, Sales and Marketing
Alexis P. Malozemoff.....	53	Chief Technical Officer
Gero G. Papst.....	53	Managing Director, American Superconductor Europe GmbH
Robert E. Schwall.....	50	Vice President, Engineered Products
John D. Scudiere.....	44	Vice President, Operations
John B. Howe.....	41	Director of Electric Industry Affairs
Albert J. Baciocco, Jr.	66	Director
Frank Borman.....	69	Director
Peter O. Crisp.....	64	Director
Richard Drouin.....	65	Director
Gerard J. Menjon.....	49	Director
Andrew G. C. Sage, II.....	71	Director
John B. Vander Sande.....	53	Director

Dr. Yurek co-founded the Company and has been a director since July 1987, President since March 1989, Chief Executive Officer since December 1989 and Chairman of the Board since October 1991. Dr. Yurek also served as Vice President and Chief Technical Officer from August 1988 until March 1989 and as Chief Operating Officer from March 1989 until December 1989. Prior to joining the Company, Dr. Yurek was a Professor of Materials Science and Engineering at MIT for 13 years.

Mr. Piekos joined the Company in February 1998 as Chief Financial Officer, Vice President, Corporate Development, Treasurer and Secretary. From June 1994 until February 1998, Mr. Piekos served as Vice President and Chief Financial Officer of Brooks Automation, Inc., a supplier of robotics and controls to the semiconductor production equipment industry. For the nine years prior to June 1994, Mr. Piekos was employed by Helix Technology Corporation, a manufacturer of cryogenic equipment, most recently as Vice President and Chief Financial Officer.

Mr. Gibson joined the Company as Vice President, Human Resources in July 1997. From April 1992 until June 1997, Mr. Gibson served in a variety of positions at Cambridge Neuroscience, Inc., most recently as Vice President, Human Resources and Administration and Chief Administrative Officer.

Mr. Koeppe joined the Company as President of the Company's subsidiary, SI, in April 1997 with the Company's acquisition of SI. Since November 1997, Mr. Koeppe has served as Executive Vice President of Strategic Planning for Power Quality Solutions. From 1988 until April 1997, Mr. Koeppe served as the President and a Director of SI.

Mr. Lefebvre joined the Company in May 1996 as Vice President, Sales and Marketing. Prior to joining the Company, Mr. Lefebvre spent 23 years at General Electric Company in a variety of positions, most recently as General Manager, National Account Sales.

Dr. Malozemoff joined the Company as Vice President, Research and Development in January 1991 and was elected Chief Technical Officer in January 1993. Prior to joining the Company, Dr. Malozemoff spent 19 years at IBM in a variety of research and management positions, most recently as IBM Research Coordinator for High Temperature Superconductivity.

Dr. Papst joined the Company in January 1993 as Managing Director of American Superconductor Europe GmbH, the Company's European subsidiary. Prior to joining the Company, Dr. Papst was President of Otto Oko-Tech GmbH & Co., an environmental technology company, from 1987 to 1992.

Dr. Schwall joined the Company in April 1993 and was elected Vice President, Engineered Products in April 1996. From March 1984 until April 1993, Dr. Schwall served in a variety of positions at IBM Corporation, most recently as Department Manager at the IBM T.J. Watson Research Center.

Mr. Scudiere joined the Company in November 1993, was promoted to Vice President, Manufacturing in July 1994 and was promoted to Vice President, Operations in May 1996. Prior to joining the Company, Mr. Scudiere was Director, Programs and Marketing for Oxford Superconductor Technology, a superconductor manufacturer, from August 1990 to October 1993. Prior to August 1990, Mr. Scudiere was Manager, Liquid Propellant Development Program for General Electric Corporation, a diversified manufacturing and services company.

Mr. Howe joined the Company in November 1997 as Director, Electric Industry Affairs. From November 1995 until September 1997, Mr. Howe was Chairman of the Massachusetts Department of Public Utilities. For the five and one-half years prior to November 1995, Mr. Howe served in various positions, most recently as Vice President, Regulatory and Government Affairs, for U.S. Generating Company.

Mr. Baciocco has been the President of The Baciocco Group, Inc., a technical and management consulting practice, since 1987 when he retired from the U.S. Navy as a Vice Admiral after 34 years of distinguished service. Mr. Baciocco is a director of Honeywell, Inc. and Shell Exploration and Production Company. Mr. Baciocco became a director of the Company in April 1997.

Mr. Borman has been Chairman of the Board of Directors of DBT Online, Inc., a provider of online access to public records, since August 1996 and President of Patlex Corporation, a company engaged in enforcing and exploiting laser-related patents, since 1988. He also served as Chief Executive Officer and a director of Patlex Corporation from September 1995 until August 1996, as Chairman and Chief Executive Officer of Patlex Corporation from 1988 to December 1992, and as Chairman of AutoFinance Group, Inc. ("AFG") from December 1992 to September 1995, during which period Patlex Corporation was a subsidiary of AFG. He served as Vice Chairman of the Board of Directors of Texas Air Corporation from 1986 to 1991. From 1969 to 1986, he served in various capacities for Eastern Airlines, including President, Chief Executive Officer and Chairman of the Board of Directors. Mr. Borman served in the United States Air Force from 1950 to 1970. Mr. Borman currently serves as a director of The Home Depot, Inc. and Thermo Instruments Systems and is also a member of the Board of Trustees of the National Geographic Society. Mr. Borman became a director of the Company in 1992.

Mr. Crisp has been a General Partner of Venrock Associates, a venture capital firm based in New York, since 1969. Mr. Crisp is also a director of Evans & Sutherland Computer Corporation, Novacare, Inc., Thermedics, Inc., Thermo Electron Corporation, Thermo Power Corporation, Thermotrex Corporation and United States Trust Corporation. Mr. Crisp became a director of the Company in 1987.

Mr. Drouin has been a partner at McCarthy Tetrault, a law firm based in Montreal, Canada, since December 1995. Mr. Drouin is also Vice Chairman of Morgan Stanley Canada Limited. Mr. Drouin was the Chairman and Chief Executive Officer of Hydro-Quebec, a power company based in Canada, from April 1988 to September 1995. Mr. Drouin is a director of Abitibi Price Inc., CT Financial Services Inc., Provigo Inc., Stelco Inc., Tele-Metropole Inc. and Memotec Communications Inc. Mr. Drouin became a director of the Company in February 1996.

Mr. Menjon has been Executive Vice President, Head of the Research and Development Division, of Electricite de France, the French public electric utility ("EDF"), since December 1994 and was the Senior Vice President, Business Development, of EDF from February 1992 to November 1994. Mr. Menjon became a director of the Company in April 1997.

Mr. Sage has been President of Sage Capital Corporation since December 1993 and was the President and Chief Executive Officer of Robertson Ceco Corporation, a metal buildings manufacturing company, from

November 1992 to December 1993. From late 1991 until January 1998, Mr. Sage was a member of the Board of Directors and a consultant to Computervision Corporation. In addition, Mr. Sage serves as Chairman of the Board of Robertson Ceco Corporation. Mr. Sage became a director of the Company in April 1997.

Dr. Vander Sande co-founded the Company. He has been a professor at MIT specializing in the microstructure of materials since 1971 and became Associate Dean of Engineering at MIT in 1992. Dr. Vander Sande became a director of the Company in 1990.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table sets forth the beneficial ownership of the Common Stock as of February 27, 1998, and as adjusted to reflect the sale of the shares of Common Stock offered hereby, by (i) each person or entity known to the Company who own beneficially 5% or more of the outstanding shares of Common Stock, (ii) each of the Company's directors, (iii) each of the Company's executive officers, (iv) all directors and executive officers of the Company as a group and (v) each Selling Stockholder.

	SHARES BENEFICIALLY OWNED PRIOR TO OFFERING(1)		SHARES TO BE SOLD IN OFFERING	SHARES BENEFICIALLY OWNED AFTER OFFERING(1)(2)	
	NUMBER	PERCENT		NUMBER	PERCENT
5% STOCKHOLDERS					
CHARTH (Compagnie Holding d'Applications et de Realisations Thermiques et Hydrauliques) S.A., a subsidiary of Electricite de France	1,000,000	8.5	--	1,000,000	6.8
Stanley Druckenmiller(3)	742,000	6.3	--	742,000	5.0
DIRECTORS					
Gregory J. Yurek(4)	506,162	4.2	--	506,162	3.4
John B. Vander Sande(5)	138,562	1.2	--	138,562	*
Peter O. Crisp(6)	73,603	*	--	73,603	*
Frank Borman(7)	37,500	*	--	37,500	*
Richard Drouin(8)	31,000	*	--	31,000	*
Albert J. Baciocco, Jr.(9)	9,000	*	--	9,000	*
Gerard J. Menjon(10)	--	--	--	--	--
Andrew G.C. Sage, II(11)	44,000	*	--	44,000	*
OTHER EXECUTIVE OFFICERS					
Stanley Piekos	5,000	*	--	5,000	*
Ross S. Gibson	--	--	--	--	--
Paul F. Koeppe(12)	89,870	*	--	89,870	*
Roland E. Lefebvre(13)	22,000	*	--	22,000	*
Alexis P. Malozemoff(14)	195,250	1.6	--	195,250	1.3
Gero G. Papst(15)	121,500	1.0	--	121,500	*
Robert E. Schwall(16)	47,925	*	--	47,925	*
John D. Scudiere(17)	57,000	*	--	57,000	*
All directors and executive officers as a group (16 persons)(18)	1,378,372	10.9	--	1,378,372	8.8
SELLING STOCKHOLDERS					
Pierce Nordquist Partners II, L.P	2,252	*	2,252	--	--
Adhill Limited Partnership	33,412	*	33,412	--	--
Advent Future Limited Partnership	33,412	*	33,412	--	--
Advent International Investors Limited Partnership	1,234	*	1,234	--	--
Advent Performance Materials Limited Partnership	33,412	*	33,412	--	--
Adwest Limited Partnership	33,412	*	33,412	--	--
World Technology Limited Partnership	33,412	*	33,412	--	--
Materia Ventures I, L.P	97,763	*	97,763	--	--
MidAmerican Capital Company	114,291	*	114,291	--	--
Xerox Corporation	88,279	*	88,279	--	--

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* Less than 1%

(1) Shares beneficially owned include shares subject to stock options that are currently exercisable or exercisable within 60 days after February 27, 1998. Any reference in the footnotes below to shares subject to stock options held by the person in question refers to such stock options.

(2) Number of shares deemed outstanding includes 11,699,625 shares outstanding as of February 27, 1998 and any shares subject to options held by the person or entity in question. Number of shares deemed outstanding after this offering includes the additional 3,029,121 shares of Common Stock which are being offered hereby. Percentage of outstanding shares owned after this offering assumes none of the listed stockholders will purchase additional shares in this offering.

(3) Mr. Druckenmiller, as the Lead Portfolio Manager of Soros Fund Management LLC, the principal investment advisor to Quantum Partners LDC ("Quantum"), and as the sole managing member of Duquesne Capital Management L.L.C., a discretionary investment advisor to a limited number of institutional clients (the "Duquesne Clients"), may be deemed to be the beneficial owner of the shares of Common Stock of the Company held for the accounts of Quantum and the Duquesne Clients. Information is derived from a Schedule 13G filed with the Securities and Exchange Commission on March 6, 1998.

(4) Includes 16,262 shares held by Dr. Yurek's wife and minor children and 361,500 shares subject to outstanding stock options.

(5) Includes 42,000 shares subject to outstanding stock options.

(6) Includes (i) 3,000 shares held by Mr. Crisp's wife and (ii) 42,000 shares subject to outstanding stock options. Mr. Crisp disclaims beneficial ownership of the shares held by his wife.

(7) Includes 34,500 shares subject to outstanding stock options.

(8) Includes 22,000 shares subject to outstanding stock options.

(9) Comprised of 9,000 shares subject to outstanding stock options.

(10) Does not include any shares beneficially owned by CHARTH (Compagnie Holding d'Applications et de Realisations Thermiques et Hydrauliques) S.A., a subsidiary of Electricite de France, of which Mr. Menjon is an executive officer.

(11) Comprised of 35,000 shares owned by a limited partnership of which Mr. Sage is the general partner and 9,000 shares subject to outstanding stock options.

(12) Includes 53,858 shares subject to outstanding stock options.

(13) Comprised of 22,000 shares subject to outstanding stock options.

(14) Includes (i) 4,500 shares held in two trusts of which Dr. Malozemoff is the co-trustee and (ii) 165,250 shares subject to outstanding stock options.

(15) Comprised of 121,500 shares subject to outstanding stock options.

(16) Includes 47,900 shares subject to outstanding stock options.

(17) Comprised of 57,000 shares subject to outstanding stock options.

(18) Includes 987,508 shares subject to outstanding stock options.

DESCRIPTION OF CAPITAL STOCK

The authorized capital stock of the Company consists of 20,000,000 shares of Common Stock, $.01 par value per share. Holders of Common Stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the outstanding shares of Common Stock entitled to vote in any election of directors may elect all of the directors standing for election. Holders of Common Stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of funds legally available therefor. Upon the liquidation, dissolution or winding-up of the Company, holders of Common Stock are entitled to receive ratably the net assets of the Company available for distribution after the payment of all debts and other liabilities of the Company. Holders of Common Stock have no preemptive, subscription, redemption or conversion rights. The outstanding shares of Common Stock are, and the shares offered hereby will be, when issued and paid for, fully paid and nonassessable.

The Company is subject to the provisions of Section 203 of the General Corporation Law of Delaware. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner or unless the interested stockholder acquired at least 85% of the corporation's voting stock (excluding shares held by certain designated stockholders) in the transaction in which it became an interested stockholder. A "business combination" includes mergers, assets sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within the previous three years did own, 15% or more of the corporation's voting stock.

The Company's Certificate of Incorporation and By-laws contain certain provisions which provide for the indemnification and limitation of liability of directors and officers. The Company's By-laws provide that, subject to certain conditions, the Company shall indemnify each director and officer of the Company against liabilities incurred by reason of the fact that such person was a director or officer of the Company if such director or officer acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company. The Company's Certificate of Incorporation also provide that directors of the Company may not be held personally liable to the Company or its stockholders for monetary damages for a breach of fiduciary duty, except in certain circumstances involving wrongful acts, such as the breach of a director's duty of loyalty or acts of omission not in good faith or which involve intentional misconduct or a knowing violation of law. However, such limitation of liability would not apply to violations of the federal securities laws, nor does it limit the availability of nonmonetary relief in any action or proceeding against a director.

The transfer agent for the Common Stock is American Stock Transfer & Trust Company.

UNDERWRITERS

Under the terms of and subject to conditions contained in an Underwriting Agreement dated the date hereof (the "Underwriting Agreement"), the Underwriters named below (the "Underwriters") for whom Morgan Stanley & Co. Incorporated and NationsBanc Montgomery Securities LLC are acting as Representatives (the "Representatives"), have severally agreed to purchase, and the Company and the Selling Stockholders have agreed to sell to them, severally, the respective number of shares of Common Stock set forth opposite the names of such Underwriters below:

NAME	NUMBER OF SHARES
Morgan Stanley & Co. Incorporated	1,310,000
NationsBanc Montgomery Securities LLC	1,310,000
Credit Suisse First Boston Corporation	80,000
Dresdner Kleinwort Benson North America LLC	80,000
A.G. Edwards & Sons, Inc	80,000
Furman Selz LLC	80,000
Edward D. Jones & Co., L.P	80,000
Needham & Company, Inc	80,000
R.W. Pressprich & Co. Incorporated	80,000
Prudential Securities Incorporated	80,000
Schroder & Co. Inc	80,000
Smith Barney Inc	80,000
H.C. Wainwright & Co., Inc	80,000
Total	3,500,000

The Underwriting Agreement provides that the obligations of the several Underwriters to pay for and accept delivery of the shares of Common Stock offered hereby are subject to the approval of certain legal matters by their counsel and to certain other conditions. The Underwriters are obligated to take and pay for all of the shares of Common Stock offered hereby (other than those covered by the over-allotment option described below) if any such shares are taken.

The Underwriters initially propose to offer part of the shares of Common Stock directly to the public at the public offering price set forth on the cover page hereof and part to certain dealers at a price that represents a concession not in excess of $.49 a share under the public offering price. Any Underwriter may allow, and such dealers may reallow, a concession not in excess of $.10 a share to other Underwriters or to certain other dealers. After the initial offering of the shares of Common Stock, the offering price and other selling terms may from time to time be varied by the Representatives.

The Company has granted to the Underwriters an option, exercisable for 30 days from the date of this Prospectus, to purchase up to an aggregate of 525,000 additional shares of Common Stock at the public offering price set forth on the cover page hereof, less underwriting discounts and commissions. The Underwriters may exercise such option solely for the purpose of covering over-allotments, if any, made in connection with this offering of the shares of Common Stock offered hereby. To the extent such option is exercised, each Underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of such additional shares of Common Stock as the number set forth next to such Underwriter's name in the preceding table bears to the total number of shares of Common Stock set forth next to the names of all Underwriters in the preceding table.

The Company, its executive officers and directors and the Selling Stockholders have agreed that, without the prior consent of Morgan Stanley & Co. Incorporated on behalf of the Underwriters, they will not (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, lend, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any share of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or (ii) enter into any swap or other arrangement that transfers, in whole or in part, any of the economic

consequences of ownership of the Common Stock, whether any such transaction described in the above clause (i) or (ii) is to be settled by delivery of such Common Stock or such other securities, in cash or otherwise for a period of 90 days after the date of this Prospectus, subject to certain limited exceptions.

In order to facilitate the offering of the Common Stock, the Underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the Common Stock. Specifically, the Underwriters may over-allot in connection with this offering, creating a short position in the Common Stock for their own account. In addition, to cover over-allotments or to stabilize the price of the Common Stock, the Underwriters may bid for, and purchase, shares of Common Stock in the open market. Finally, the underwriting syndicate may reclaim selling concessions allowed to an Underwriter or a dealer for distributing the Common Stock in this offering, if the syndicate repurchases previously distributed Common Stock in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the Common Stock above independent market levels. The Underwriters are not required to engage in these activities, and may end any of these activities at any time. The Underwriters and dealers may engage in passive market making transactions in the Common Stock in accordance with Rule 103 of Regulation M promulgated by the Commission. In general, a passive market maker may not bid for, or purchase, the Common Stock at a price that exceeds the highest independent bid. In addition, the net daily purchases made by any passive market maker may not exceed 30% of its average daily trading volume in the Common Stock during a specified two month period, or 200 shares, whichever is greater. A passive market maker must identify passive market making bids as such on the Nasdaq electronic inter-dealer reporting system. Passive market making may stabilize or maintain the market price of the Common Stock above independent market levels. Underwriters and dealers are not required to engage in passive market making and may end passive market making activities at any time.

The Company, the Selling Stockholders and the Underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

Mr. Drouin, a director of the Company, is also Vice Chairman of Morgan Stanley Canada Limited, an affiliate of Morgan Stanley & Co. Incorporated.

LEGAL MATTERS

The validity of the Common Stock offered hereby will be passed upon by Hale and Dorr LLP, Boston, Massachusetts. Certain legal matters will be passed upon for the Underwriters by Davis Polk & Wardwell, New York, New York.

EXPERTS

The consolidated balance sheets as of March 31, 1997 and 1996 and the consolidated statements of operations, cash flows and stockholders' equity of the Company for each of the three years in the period ended March 31, 1997 incorporated by reference in this Prospectus from the Annual Report on Form 10-K, as amended, the Current Report on Form 8-K/A filed on June 23, 1997 and the Current Report on Form 8-K filed on September 5, 1997 have been incorporated herein in reliance on the reports of Coopers & Lybrand L.L.P., Ernst & Young LLP and Smith & Gesteland, LLP, independent accountants, given on the authority of these firms as experts in accounting and auditing.

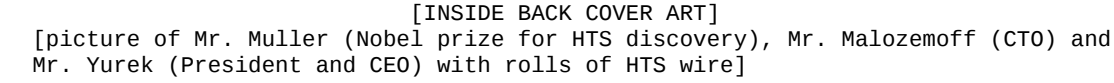
GLOSSARY OF SIGNIFICANT TECHNICAL TERMS

Amp	Ampere. The standard unit for measuring the magnitude of an electric current.
Billet	A metal container suitable for rolling or extrusion, into which a superconducting material is packed.
Coated Conductors	Ribbon-shaped wires that show promise as a next generation wire technology. These wires are made by depositing thin films of intermediate materials, e.g. cubic zirconia, on ribbons of metals, followed by deposition of a thin layer of HTS material and a protective coating.
Cryogenic	Relating to processes that achieve and maintain low temperatures through the use of special refrigeration and cooling techniques, including the use of liquified gases such as helium and nitrogen and the use of mechanical refrigerators.
Current Leads (HTS)	Conductors that carry electric current but minimal heat into ultra-low temperature cryogenic environments. HTS current leads address the critical problem of heat leaks in LTS-based electrical equipment and magnets.
Current Limiter	A device used to instantaneously limit the flow of excessive electrical current (fault current) in a circuit, thereby protecting expensive electrical equipment. Fault currents are typically caused by short circuits or lightning.
Dielectric	An insulating substance, such as oil, liquid nitrogen or paper impregnated with oil, designed to withstand applied voltages.
Electric Motor	Equipment that converts electrical energy into useful rotational mechanical power.
Electromagnet	A coil of wire carrying electric current and designed to create a magnetic field. The purpose of the magnetic field can be energy storage, medical magnetic resonance imagining, magnetic levitation, etc.
EPRI	Electric Power Research Institute. Founded in 1972, EPRI identifies and pursues advanced technology for the U.S. electric utility industry to improve power production, distribution and use. EPRI serves more than 700 member utilities.
Generator	Equipment that converts rotational mechanical input power, such as that from a steam turbine, into electricity by using electromagnetic force.
Grid	The electric power industry infrastructure of interconnected electrical systems and services that provides power to all users.
High Temperature Superconductor (HTS)	Resistance-free conductors made of ceramic materials that exhibit superconducting properties at temperatures between 20 and 135 Kelvin (-423 degreesto -216 degreesF), therefore requiring less expensive cooling systems than those needed for low temperature superconductors. The first high temperature superconductor was discovered in 1986.
HTS Electronic Applications	Communication, data and measurement applications such as base stations for cellular phones and satellite communications, scientific research instruments and high speed computing.
hp	Horsepower. A measurement of power used to rate motors. HTS technology will be most effective initially in motors rated 1,000 hp or higher. 1,000 hp = 0.746 MVA.
Kelvin	A temperature scale according to which absolute zero is 0 K, the equivalent of -459 degrees Fahrenheit, and the freezing point of water is 275K, the equivalent of 32 degrees Fahrenheit.
Liquid Helium	An ordorless, colorless material used for particularly extreme cooling requirements. Liquid helium boils at 4.2K

(-452 degrees F).

Liquid Nitrogen	An inexpensive, inert and non-toxic liquid cryogen formed by chilling gaseous nitrogen to 77 Kelvin (-321 degreesF). In many applications, such as power cables and transformers, liquid nitrogen will be used to cool HTS wires and components to achieve superconducting performance.
Low Temperature Superconductor (LTS)	First discovered in 1911, low temperature superconductors, which include many metals, exhibit superconducting properties at a temperature of up to a maximum of 23K (-418 degrees F) and are usually cooled with liquid helium.
MVA or MW	Measures of power. One million volt-amperes, or one mega volt-amperes (MVA), is equivalent to one mega Watt (MW).
Multifilamentary Wire	A wire consisting of many fine filaments of a high temperature superconductor imbedded in a metal matrix. The multifilamentary architecture makes HTS wires mechanically robust.
SMES	Superconducting Magnetic Energy Storage. A device based on the principle that current in a superconducting coil can store mega Watts of energy and deliver it instantly to compensate for power dips or sags in a power grid.
Superconductor	A material which is a perfect conductor of electricity; i.e., no heat loss due to electrical resistance below a critical temperature, T(c), a critical current density, J(c), and a critical magnetic field, H(c). The specific values for T(c), J(c) and H(c) are different for different superconducting materials.
Tesla	A unit of measure of magnetic field strength. The magnetic field strength of iron is 2T.
Transformer	A device that converts ac electric power from one voltage and current level to another. Transmitting energy at higher voltages is more efficient, but consumers need low voltage power. Electricity experiences several voltage changes en route to an end-user.

[INSIDE BACK COVER ART]


[picture of Mr. Muller (Nobel prize for HTS discovery), Mr. Malozemoff (CTO) and Mr. Yurek (President and CEO) with rolls of HTS wire]

Alex Muller (center), winner of the 1986 Nobel Prize for the discovery of HTS and one of many distinguished consultants to AMSC, with Chief Technical Officer, Alex Malozemoff (left) and President and CEO Greg Yurek.

[AMERICAN SUPERCONDUCTOR LOGO]