SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 10-K

FOR ANNUAL AND TRANSITION REPORTS PURSUANT TO SECTIONS 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

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

For the fiscal year ended March 31, 1999

OR

[]TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition Period from

Commission file number 0-19672

American Superconductor Corporation (Exact Name of Registrant as Specified in Its Charter)

Delaware (State or other jurisdiction (State or other jurisdiction of incorporation or organization)

04-2959321 (IRS Employer Identification Number)

Two Technology Drive Westborough, Massachusetts (Address of Principal Executive Offices)

01581 (Zip Code)

Registrant's telephone number, including area code: (508) 836-4200

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

Securities registered pursuant to Section 12(g) of the Act: Common Stock, \$.01 par value

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or $15\,(d)$ of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X

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

On April 30, 1999, the aggregate market value of voting Common Stock held by nonaffiliates of the Registrant was \$187,441,763 based on the closing price of the Common Stock on the Nasdaq National Market on April 30, 1999.

The number of shares of Common Stock outstanding as of April 30, 1999 was 15,379,818.

DOCUMENTS INCORPORATED BY REFERENCE

Form 10-K Part Document

Definitive Proxy Statement with respect to the Annual Meeting of Stockholders for the fiscal year ended March 31, 1999, to be filed with the Securities and Exchange Commission by June 25, 1999.

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This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. For this purpose, any statements contained herein that relate to future events or conditions, including without limitation, the statements under "Item 1. Business" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and located elsewhere herein regarding industry prospects and the Company's prospective results of operations or financial position, may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," and similar expressions are intended to identify forward-looking statements. Such forward-looking statements represent management's current expectations and are inherently uncertain. The important factors discussed below under the caption "Management's Discussion and Analysis of Financial Conditions and Results of Operations--Future Operating Results," among others, could cause actual results to differ materially from those indicated by forward-looking statements made herein and presented elsewhere by management from time to time.

Item 1. Business

American Superconductor Corporation (the "Company") 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.

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 high temperature superconductor ("HTS") and low temperature superconductor ("LTS") materials, need to be cooled to cryogenic temperatures in order to exhibit the property of superconductivity.

[CHART APPEARS HERE]

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, Tc, which is different for each superconducting material. The specific HTS material in this chart has no electrical resistance below 108K (-265 degrees Fahrenheit), as opposed to the specific LTS material in this chart, which has no electrical resistance below 10K (-441 degrees Fahrenheit).

A combination of three conditions must 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 (Tc);
- . The current passing through a given cross-section of the material must be below a characteristic level known as the critical current density (Jc); and
- . The magnetic field to which the material is exposed must be below a characteristic value known as the critical magnetic field (Hc).

These conditions are interdependent and define the environmental operating conditions for the superconductor.

[CHART APPEARS HERE]

Not only must a superconducting material be cooled below its critical temperature, Tc, 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, Jc, and the magnetic field to which the superconductor is exposed must not be above a critical level, Hc. 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; 0K 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 superconducting magnetic energy storage ("SMES") applications, principally because commercially available superconductors (i.e., LTS materials) are made superconductive only when these materials are cooled to near 0K. 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 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 and because they can 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, Europe, Japan 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 SMES systems utilizing LTS electromagnets ("LT-SMES"). The Company's LT-SMES power quality products 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. The Company is also selling LT-SMES to electric utilities to solve problems of voltage instability and low voltage in large-scale transmission 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 and reliability 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 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 at below 10K (-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 20K (-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 superconductor-based products: the power quality and reliability market, for which the Company currently manufactures and markets SMES systems and services; and the market for power transmission cables, motors, generators and transformers, for which the Company is currently developing HTS wires and related products.

Superconducting Magnetic Energy Storage (SMES)

The Company has focused initially on SMES systems as its product platform to address the need for solutions for industrial power quality problems faced by industrial users of power, and transmission network power reliability problems, faced by electric utilities. 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. Industry sources estimate the cost of power quality problems to U.S. industry alone exceeds \$10 billion per year. Protection against power reliability problems, such as voltage instability and low voltage, which are perennial problems faced by many utilities around the world, can provide stabilization of transmission networks and an increase in effective transmission capacity of electrical networks.

In April 1997, the Company acquired Superconductivity, Inc. ("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 power quality and reliability 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 products. The Company also plans to expand its current SMES product line. The Company has incorporated 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 offers two product lines: Power Quality SMES (PQ-SMES) and Distributed-SMES (D-SMES). PQ-SMES are typically installed at manufacturing sites to provide enhanced quality of electric power. The Company has sold ten PQ-SMES units which are installed at customer sites in the United States, Europe and South Africa. D-SMES systems, introduced in February 1999, consist of multiple SMES units installed at substations throughout power transmission networks to provide enhanced transmission network reliability and capacity.

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 also has distribution agreements with one European and one North American utility.

The Company currently offers a service component of its power quality and reliability business that includes the assessment of customer needs and provides service contracts and extended warranties. The Company plans to expand this portion of its power quality business.

HTS Electric Power Products

HTS electric power products under development around the world 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 government contracts, prototype sales and funds from corporate partners Pirelli Cavi E Sistemi S.p.A. ("Pirelli"), Electricite de France ("EDF") and ABB Power Transmission and Distribution Company SA ("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 U.S. national laboratories and with Industrial Research Limited of New Zealand, 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 power quality and reliability 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 Applied Engineering Technologies, Ltd. ("AET") in order to strengthen its 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 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 an HTS power cable in a utility network will occur in the second half of calendar year 2000.

Coils for Motors and Generators. The Company is designing, developing and fabricating HTS wires, rotor coils and cryocoolers for use in high-horsepower electric motors with the potential for use in industrial and utility applications and for ship propulsion. Motors utilizing HTS wires and components 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. In March 1999, the Company shipped HTS rotor coils to Reliance for fabrication of a 1,000 hp HTS motor. This motor is expected to undergo extensive testing and evaluation before being installed in an industrial site in 2000. The Company expects HTS wire sales and additional research contracts from other companies and government agencies for developing HTS motors in 2000.

Cables for Transformers. In cooperation with ABB, one of the largest transformer suppliers in the world, and EDF, the Company is developing special 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 that 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 delivery of its HTS transformer cables for prototype applications will occur in 2000.

As part of its long range transformer wire program with ABB and EDF, the Company is developing a special HTS wire which enables a fault current limiting functionality in transformers and could enable stand-alone fault current limiters ("FCLs"). FCLs instantaneously protect a power grid from electric surges caused by lightning by switching from a low resistance superconducting state to a high resistance state when the current exceeds the critical current of the superconductor.

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 but continues to monitor new developments such as the discovery of HTS oxide bronzes. 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 may integrate these subsystems into full cryogenic and electrical systems, 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" and "--Patents and the Processing 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 ${\tt HTS}$ 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 and fault-current limiting magnet and coil applications, special conductor architectures will need to be developed. In January 1998, the Company announced a significant program in collaboration with ABB and EDF to attempt to develop such architectures.

The HTS wires used in the electromagnetic coils, electromagnets and multistrand conductors will need to have operating 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/) for multifilamentary composite wires and over 500,000 A/cm/2/ for coated conductor wires (see below). Most applications will require this current density to be maintained in the presence of 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 composite 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), and short coated conductor samples exceed the target 500,000 A/cm/2/ level. The challenge is to produce cost effective wires with these electrical properties by high-volume manufacturing processes in long lengths (typically greater than 3,000 meters) 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 12,000 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. Successful completion of testing this cable by Pirelli occurred in December 1998. The Company plans to deliver wires within its current fiscal year to Pirelli for incorporation in a 120 meter HTS cable circuit for demonstration in the city of Detroit. The Company believes this demonstration will be underway by the end of fiscal year 2001. In 1996, Rockwell Automation built and demonstrated a 286 horsepower HTS motor utilizing rotor coils fabricated by the Company. In March 1999, the Company completed manufacture and delivery of coils to Rockwell Automation for incorporation in the first planned 1,000 hp HTS motor demonstration.

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 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 significantly 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.

The Company has demonstrated increasingly advanced prototypes of electromagnetic coils and multistrand conductors, including an electromagnet that produces a magnetic field of 7.25 Tesla at 21K (-422 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. See "--HTS Wire Production Processes."

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 and transmission reliability products and is enhancing and expanding its SMES product line. It has decreased the cost of these products by introducing HTS current leads to simplify the cryogenic system, by improving the cryostat, by upgrading the magnet design, and is working to continue improvements in all these areas. 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 further 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, wiredrawing, multifilamentary bundling and rolling. Finally, the wire is heattreated to transform the precursor powder inside the wire into a hightemperature 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. Gregory Yurek, Chairman of the Board, President and Chief Executive Officer and a founder of the Company and at the time a professor at MIT, and Dr. John Vander Sande, a professor at MIT and a director of the Company, 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.

Another variant of coated conductor is called deformation texturing of substrates. 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 deformationprocessed wire. The Company is pursuing the development of these processes with an active internal program in collaboration with EPRI, Los Alamos National Laboratory, Oak Ridge 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, 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, static VAR compensators, 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., Furukawa Electric Co., Ltd., and Fujikura Ltd.; several European companies, such as Siemens A.G. in Germany, Nordic Superconductor Technologies in Denmark, Alcatel in France, 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, power reliability 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, which incorporates a long-term commercialization

agreement, the Company has recorded as revenue \$15.3 million from 1990 to March 31, 1999 and Pirelli has agreed to pay the Company an aggregate of \$0.8 million over the next six months as "development fees". As of April 30, 1999, Pirelli owned less than 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 comprising 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, together with 100,000 shares EDF purchased in the April 1998 public offering, represented, as of April 30, 1999, approximately 7.2% of the Company's outstanding Common Stock. EDF agreed to pay the Company an aggregate of \$5.0 million (of which \$3.4 million has been recorded as revenue as of March 31, 1999) between 1997 and 2001 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 wireforming technologies for the purpose of developing and producing HTS wires and cables for transformers. ABB agreed to pay the Company an aggregate of \$5.0 million (of which \$3.3 million has been recorded as revenue as of March 31, 1999) between 1997 and 2001 as "development fees;" however, this agreement may be terminated upon 90 days notice by either party.

In January 1999, ABB received a Superconductivity Partnership Initiative award from the U.S. Department of Energy to install a 10 MVA transformer in a U.S. electric utility network. The Company received a sub-contract from ABB for the scale-up and production of HTS wire for the transformer.

The Company has also established a number of collaborative research relationships with various organizations such as Industrial Research, Ltd. in New Zealand, 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 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 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. In the five-year period since April 1, 1994, the Company has received approximately \$40 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. Accordingly, the Company is pursuing an active strategy of building its own portfolio in the HTS area and licensing key patents from others. 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 and through a non-exclusive license with Lucent Technologies. 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 and has acquired a nonexclusive license on the OPIT method from Lucent Technologies. Some of these applications have been issued as patents in the United States and abroad while others are pending. The Company also has acquired rights to exclusively license additional intellectual property in the coated conductor area through its collaborations with EPRI and MIT.

Effective March 31, 1998, the Company signed an agreement with Lucent Technologies, Inc. ("Lucent"), granting the Company a royalty-bearing, non-exclusive worldwide license for superconductor wire under Lucent's portfolio of high temperature superconductor patents and patent applications. The license runs from March 31, 1998 until the expiration of the last-to-expire patent in the portfolio.

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, Power Reliability 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 and reliability systems.

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 March 31, 1999, the Company employed a total of 231 persons, 25 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.

Research and Development

The Company's research and development expenses in fiscal 1999 were approximately \$10,409,000. Adjusted research and development expenses, which consist of company-funded research and development expenses plus research and development expenses related to externally-funded development contracts included in costs of revenue and research and development expenses offset by cost-sharing funding under government contracts, were \$18,751,000 in fiscal 1999.

Item 2. Properties.

The Company's operations are located in approximately 102,000 square feet of space in Westborough, Massachusetts and approximately 60,000 square feet of space in Middleton, Wisconsin. 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.

Item 3. Legal Proceedings.

Neither the Company nor any subsidiary is involved in any material legal proceedings other than routine litigation incidental to its business.

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

No matters were submitted to a vote of the Company's security-holders during the fourth quarter of the fiscal year ended March 31, 1999.

The following table sets forth the names, ages and offices of all executive officers of the Company:

Name	Age	Office
Gregory J. Yurek	52 President,	Chief Executive Officer and Chairman
	of the Bo	ard of Directors
Roland E. Lefebvre	49 Executive	Vice President and Chief Operating Officer
Alexis P. Malozemoff	55 Senior Vic	e President and Chief Technical Officer
Stanley D. Piekos	51 Vice Presi	dent, Corporate Development,
1	Chief Fin	ancial Officer, Treasurer and Secretary
Ross S. Gibson	40 Vice Presi	dent, Human Resources
John B. Howe		dent, Electric Industry Affairs
Thomas M. Rosa		unting Officer, Corporate Controller
1110.1110.1111		tant Secretary

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. Lefebvre joined the Company in May 1996 as Vice President, Sales and Marketing and was elected Executive Vice President and Chief Operating Officer in May 1998. 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 and Senior Vice President in May 1998. 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.

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. During his first fifteen years in business, Mr. Piekos held a variety of positions in financial management and marketing with W.R. Grace & Co., a global manufacturer of specialty chemicals and industrial equipment.

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. Gibson has also held positions at Lifeline Systems, Lotus Development and General Motors.

Mr. Howe joined the Company in November 1997 as Director, Electric Industry Affairs and was elected Vice President, Electric Industry Affairs in May 1998. 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. Rosa joined the Company in October 1992 as Corporate Controller and was elected Chief Accounting Officer in July 1998. Prior to joining the Company, Mr. Rosa spent 10 years in a variety of financial management positions at Prime Computer, Wang Laboratories and Lockheed Sanders, most recently as Division Controller at Prime Computer.

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

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 price per share of the Company's Common Stock as reported on the Nasdaq National Market for the two most recent fiscal years:

	Common Stock Price			
		igh		
Fiscal year ended March 31, 1998:				
First quarter	12	1/4	8	1/4
Second quarter	13	3/8	8	1/2
Third quarter				1/4
Fourth quarter	15	1/8	8	1/2
Fiscal year ended March 31, 1999:				
First quarter	18	1/4	11	1/2
Second quarter				
Third quarter	12	1/8	6	1/4
Fourth quarter				

The number of shareholders of record on June 16, 1999 was 450.

Item 6. Selected Financial Data.

The selected consolidated financial data presented below for the fiscal years ended March 31, 1999 and 1998 have been derived from the Company's consolidated financial statements that have been audited by PricewaterhouseCoopers LLP, independent accountants. The financial data for each of the three 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 PricewaterhouseCoopers LLP, 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 two fiscal years in the period ended March 31, 1997 has been audited by PricewaterhouseCoopers LLP. This financial data should be read in conjunction with the Consolidated Financial Statements and the Notes thereto and the other financial information appearing elsewhere in this Annual Report on Form 10-K.

	7	Year ended	d March 3	1,	
	1999	1998	1997	1996	1995
	(In thous	sands, exc	cept per	share da	ta)
Revenues	11,257	15 , 129	10,551	10,764	8,593
Net loss	(15, 326)	(12,378)	(13,377)	(9,698)	(7,036)
Net loss per share	(1.01)	(1.06)	(1.27)	(0.94)	(0.69)
Total assets	48,130	19,551	26,581	35,856	44,887
Working capital	30,459	5,059	318	5,101	2,341
Cash, cash equivalents and long-					
term marketable securities	31,572	8,009	16,031	26,519	33,653
Stockholders' equity	43.958	12.859	16.501	29,780	38.416

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

The information required by this Item is attached as Appendix A hereto and is incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The Company's exposure to market risk through derivative financial instruments and other financial instruments, such as investments in short-term marketable securities and long-term debt, is not material.

Item 8. Financial Statements and Supplementary Data.

All financial statements required to be filed hereunder are filed as Appendix B hereto, are listed under Item 14(a), and are incorporated herein by reference.

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

Not Applicable.

PART III

Item 10. Directors and Executive Officers of the Registrant.

The response to this item is contained in part under the caption "Executive Officers of the Company" in Part I of this Annual Report on Form 10-K, and in part in the Company's Proxy Statement for the Annual Meeting of Stockholders for the fiscal year ended March 31, 1999 (the "1999 Proxy Statement") in the sections "Election of Directors--Nominees," and "Other Matters--Section 16 Beneficial Ownership Reporting Compliance," which sections are incorporated herein by reference.

Item 11. Executive Compensation.

The response to this item is contained in the 1999 Proxy Statement in the sections "Election of Directors--Directors' Compensation," "--Executive Compensation," and "--Employment Agreements with Senior Executives," which sections are incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management.

The response to this item is contained in the 1999 Proxy Statement in the section "Beneficial Ownership of Common Stock," which section is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions.

The response to this item is contained in the 1999 Proxy Statement in the section "Election of Directors--Certain Business Relationships," which section is incorporated herein by reference.

PART IV

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

(a) The following documents are filed as Appendix B hereto and are included as part of this Annual Report on Form 10-K:

Financial Statements:
Report of Independent Accountants

Consolidated Balance Sheets
Consolidated Statements of Operations
Consolidated Statements of Cash Flows
Consolidated Statements of Changes in Stockholders' Equity
Notes to Consolidated Financial Statements

The Company is not filing any financial statement schedules as part of this Annual Report on Form 10-K because they are not applicable or the required information is included in the financial statements or notes thereto.

(b) Reports on Form 8-K.

No reports on Form 8-K were filed during the last quarter of the Company's fiscal year ended March 31, 1999.

(c) The list of Exhibits filed as a part of this Annual Report on Form 10-K is set forth on the Exhibit Index immediately preceding such Exhibits, and is incorporated herein by reference.

SIGNATURES

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

American Superconductor Corporation

/s/ Gregory J. Yurek By: ______Gregory J. Yurek
Chairman of the Board, President

and

Chief Executive Officer

Date: June 25, 1999

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Gregory J. Yurek Gregory J. Yurek	Director, Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)	June 25, 1999
/s/ Stanley Piekos Stanley Piekos	Chief Financial Officer and Treasurer (Principal Financial Officer)	June 25, 1999
/s/ Thomas Rosa Thomas Rosa	Chief Accounting Officer and Corporate Controller (Principal Accounting Officer)	June 25, 1999
/s/ Albert J. Baciocco, Jr.	Director	June 25, 1999
Albert J. Baciocco, Jr.	_	
/s/ Frank Borman	Director	June 25, 1999
Frank Borman	_	
/s/ Peter O. Crisp	Director	June 25, 1999
Peter O. Crisp	_	
/s/ Richard Drouin	Director	June 25, 1999
Richard Drouin	_	
/s/ Gerard J. Menjon	Director	June 24, 1999
Gerard J. Menjon	_	
/s/ Andrew G.C. Sage, II	Director	June 25, 1999
Andrew G.C. Sage, II	_	
/s/ John B. Vander Sande	Director	June 22, 1999
John B. Vander Sande	=	

AMERICAN SUPERCONDUCTOR CORPORATION

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

American Superconductor Corporation (the "Company") was founded in 1987. The Company is focused on developing and commercializing high temperature superconducting ("HTS") wires and wire products. In the area of power quality and reliability, the Company is focused on marketing and selling commercial low temperature superconducting ("LTS") magnetic energy storage ("SMES") devices.

On April 8, 1997, the Company acquired Superconductivity, Inc. ("SI"), which is now being operated as the SMES business unit of the Company, in a transaction accounted for under the pooling of interests method of accounting. Accordingly, the Company's consolidated financial statements reflect the combined financial operating results and cash flows of the Company and SI as if they had been combined for all periods presented. 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

Fiscal Years Ended March 31, 1999 and March 31, 1998

Revenues

Total revenues decreased to \$11,257,000 in fiscal 1999 from \$15,129,000 in fiscal 1998. Revenues from the Company's SMES business unit declined \$2,053,000 to \$1,510,000 in fiscal 1999 from \$3,563,000 in fiscal 1998. This was due to a decrease in SMES shipments in fiscal 1999 which the Company believes is attributable to the longer than expected sales cycle associated with industrial power quality SMES sales, and lower Rental/other revenues. HTS business unit revenues decreased to \$9,748,000 in fiscal 1999 from \$11,566,000 in fiscal 1998. This decrease was primarily due to lower prototype development contract revenues.

In addition to reported revenues, the Company also received funding of \$1,953,000 in fiscal 1999 under government cost-sharing agreements as compared to \$1,771,000 in fiscal 1998. 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 revenue.

Operating expenses

The Company's total operating expenses in fiscal 1999 were \$28,508,000 compared to \$27,884,000 in fiscal 1998. Costs of revenue, which include costs of research and development contracts and costs of product sales and prototype development contracts, decreased to \$12,021,000 in fiscal 1999 compared to \$14,333,000 in fiscal 1998. This decrease reflects a reduction in SMES shipments and the decrease in prototype development revenues. Cost of revenue in fiscal 1999 was also affected by unfavorable manufacturing variances related to the lower SMES production.

Adjusted research and development ("R&D") expenses, which include amounts classified as costs of revenue and amounts offset by cost sharing funding, increased to \$18,751,000 in fiscal 1999 from \$17,048,000 in fiscal 1998. This increase was due to the continued scale-up of the Company's internal research and development activities including the hiring of additional personnel, the purchases of materials and equipment and the payment of patent licensing fees. A portion of the 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 1999 and fiscal 1998 were \$7,335,000 and \$7,494,000, respectively. Additionally, R&D expenses that were offset by cost sharing funding were \$1,007,000 and \$913,000 in fiscal 1999 and 1998, respectively. Net R&D expenses (exclusive of amounts classified as costs of revenue and amounts offset by cost sharing funding) increased to \$10,409,000 in fiscal 1999 from \$8,641,000 the prior year.

Adjusted selling, general and administrative ("SG&A") expenses, which include amounts classified as costs of revenue and amounts offset by cost sharing funding, were \$9,765,000 in fiscal 1999 as compared to \$9,162,000 in fiscal 1998. These increases were primarily due to the hiring of additional personnel and related expenses incurred to support corporate development and marketing activities and future planned growth. A portion of the SG&A expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as SG&A expenditures included as costs of revenue during fiscal 1999 and fiscal 1998 were \$2,741,000 and \$3,394,000, respectively. The SG&A amounts offset by cost share funding were \$946,000 and \$858,000 in fiscal years 1999 and 1998, respectively. Net SG&A expenditures (exclusive of amounts classified as costs of revenue and amounts offset by cost sharing funding) increased to \$6,078,000 in fiscal 1999 from \$4,910,000 the prior year.

Non-operating expenses

Interest income increased to \$1,921,000 in fiscal 1999, as compared to \$782,000 in fiscal 1998. This increase primarily reflects the higher cash balances available for investment as a result of the Company's public offering of 3,504,121 shares of common stock on April 22, 1998. The Company received net proceeds (after the underwriters discount but before deducting offering expenses) of \$46,114,000 from this offering.

Interest expense decreased to \$9,800 in fiscal 1999 compared to \$239,000 in fiscal 1998. This decrease reflects the retirement of long-term debt following the offering.

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 a 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, 1998 and March 31, 1997

Revenues

Total revenues increased 43% to \$15,129,000 in fiscal 1998 from \$10,551,000 in fiscal 1997. This increase was due primarily to higher contract revenue associated with the ABB/EDF joint development program to develop HTS wire for power transformers. The agreements with ABB and EDF were signed in fiscal 1998, and contributed \$3,075,000 in contract revenue in fiscal 1998, compared to \$700,000 in contract revenue and \$300,000 in product sale revenue from ABB in fiscal 1997.

In addition, contract revenue was also positively affected by a \$700,000 contract with the Electric Power Research Institute ("EPRI") and by an increase in work performed on seven Phase II Small Business Innovation Research (SBIR) grants, five of which were awarded during fiscal 1998, from the Department of Energy, Department of Defense, and National Science Foundation. At the SMES business unit, fiscal 1998 product sales increased \$1,518,000 compared to fiscal 1997, which was largely offset by a decrease in contract revenue of \$1,426,000. Revenue was also positively affected by the recognition of \$565,000 in product sales by AET, which was acquired on July 31, 1997, four months into the Company's fiscal year. Fiscal 1997 contract revenue

included \$825,000 relating to a research and development agreement with Inco Alloys International, which was discontinued on December 31, 1996.

In addition to reported revenues, the Company also received funding of \$1,771,000 in fiscal 1998 under government cost-sharing agreements as compared to \$1,706,000 in fiscal 1997. 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 revenue.

Operating expenses

The Company's total operating expenses in fiscal 1998 were \$27,884,000 compared to \$23,345,000 in fiscal 1997. Costs of revenue, which include costs of research and development contracts and costs of product sales and prototype development contracts, increased to \$14,333,000 in fiscal 1998 compared to \$10,577,000 in fiscal 1997. 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. Included in cost of revenue is a write-down provision of \$445,000 in fiscal 1997. This provision was required to adjust the carrying values of certain items of inventory to their fair values.

Adjusted R&D expenses, which include amounts classified as costs of revenue and amounts offset by cost sharing funding, increased to \$17,048,000 in fiscal 1998 from \$14,678,000 in fiscal 1997. This increase was due to the continued scale-up of the Company's internal research and development activities including the hiring of additional personnel, the purchases of materials and equipment and the payment of patent licensing fees. A portion of the 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 1998 and fiscal 1997 were \$7,494,000 and \$5,322,000, respectively. Additionally, R&D expenses that were offset by cost sharing funding were \$913,000 and \$879,000 in fiscal 1998 and 1997, respectively. Net R&D expenses (exclusive of amounts classified as costs of revenue and amounts offset by cost sharing funding) increased to \$8,641,000 in fiscal 1998 from \$8,477,000 the prior year.

Adjusted SG&A expenses were \$9,162,000 in fiscal 1998 as compared to \$7,305,000 in fiscal 1997. These increases were primarily due to additional recruiting, legal, consulting, and marketing expenses incurred to support the overall increase in the Company's revenues and research and development activities, as well as increases in executive bonuses and other compensation. A portion of the 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 1998 and fiscal 1997 were \$3,394,000 and \$2,186,000, respectively. The SG&A amounts offset by cost share funding were \$858,000 and \$828,000 in fiscal years 1998 and 1997, respectively. Net SG&A expenses (exclusive of amounts classified as costs of revenue and amounts offset by cost sharing funding) were \$4,910,000 in fiscal 1998 as compared to \$4,291,000 in fiscal 1997.

Non-operating expenses

Interest income decreased to \$782,000 in fiscal 1998, as compared to \$1,177,000 in fiscal 1997. 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, pay liabilities and transaction costs related to the two mergers, and to purchase capital equipment. Interest expense decreased from \$356,000 in fiscal 1997 to \$239,000 in fiscal 1998 primarily due to the payoff of notes payable and the reduction in long term debt. 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 1998, the Company incurred an additional \$155,000 in transaction fees resulting from professional fees relating to both the SI (\$76,000) and the AET (\$79,000) acquisitions. In fiscal 1997 SI incurred professional fees relating to a terminated merger negotiation amounting to \$670,000.

LIQUIDITY AND CAPITAL RESOURCES

At March 31, 1999, the Company had cash, cash equivalents and long-term marketable securities totaling \$31,572,000 compared to cash, cash equivalents and long-term marketable securities totaling \$8,009,000 at March 31, 1998. This increase was primarily due to the public offering of 3,504,121 shares of common stock on April 22, 1998. The Company received net proceeds (after the underwriters discount but before deducting offering expenses) of \$46,114,000 as a result of this offering. In fiscal 1999, \$15,098,000 was used to fund the Company's operations. Approximately \$3,142,000 was used for the retirement of long-term debt. Additionally, \$3,614,000 of cash was used for the purchase of capital equipment, primarily for research and development and manufacturing.

The Company has potential funding commitments of approximately \$10,326,000 to be received after March 31, 1999 from strategic partners and government agencies (all of which is due within the next three years). However, a total of \$5,276,000 of these commitments (representing commitments under government contracts) is subject to cancellation.

The Company's policy is to invest available funds in short-term, intermediate-term, and long-term investment grade marketable securities, including but not limited to government obligations, repurchase agreements, certificates of deposit and money market funds.

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 on its current business plan, that its current cash and marketable securities should be sufficient to fund the Company's operations for the next two years. However, the Company may need additional funds sooner than anticipated if the Company's performance deviates significantly from its current business plan or 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 under terms acceptable to the Company.

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

YEAR 2000 ISSUES

The Company is currently addressing a universal problem commonly referred to as "Year 2000 Compliance," which relates to the ability of computer programs and systems to properly recognize and process date sensitive information before and after January 1, 2000. Many computer programs and systems recognize dates using two-digit year data (rather than four-digit data), and therefore may be unable to determine the correct century for the year. Failure to properly recognize and process date information may cause such programs and systems to fail to operate or to operate with erroneous results.

The Company has analyzed and continues to analyze its internal information technology ("IT") systems ("IT systems") to identify any computer programs that are not Year 2000 compliant and implement any changes required to make such systems Year 2000 compliant. The Company believes that its critical IT systems currently are capable of functioning without substantial Year 2000 compliance problems. The Company has identified only a few non-critical, but important, IT systems that must be replaced due to Year 2000 concerns, and the Company already has plans to replace these IT systems with Year 2000 compliant systems providing increased functionality. The Company believes such IT systems will be Year 2000 capable in a time frame that will avoid any material adverse effect on the Company. Also, the Company does not believe that the expenditures related to replacing or upgrading any of its IT systems to make them Year 2000 compliant will have a material adverse

effect on the operating results or financial condition of the Company. The Company has evaluated its critical equipment and critical systems that contain embedded software and the Company believes that all of its critical Non-IT systems are capable of functioning without substantial Year 2000 compliance problems.

A substantial portion of the current products being developed, manufactured and/or sold by the Company (e.g. HTS wire and related products) contain no computer programs and as such pose no significant Year 2000 compliance concerns. The Power Quality Division's SMES units currently being manufactured contain computer programs that may be susceptible to Year 2000 compliance problems. The Company is in the process of upgrading and testing these computer programs to insure Year 2000 compliance, and believes that all changes will be in place in the second calendar quarter of 1999 on both currently manufactured equipment and units that have been previously sold. However, the Company's products are often used by its customers in systems that contain third party products. Therefore, even though the Company's current products may be Year 2000 compliant, the failure of such third party products to be Year 2000 compliant, or to properly interface with the Company's current products, may result in a system failure.

The Company is investigating each of its significant vendors, suppliers, financial service organizations, service providers and customers to confirm that the Company's operations will not be materially adversely affected by the failure of any such third party to have Year 2000 compliant computer programs. This is being undertaken by a process that includes questionnaires, interviews, on-site visits and other available means. The Company expects to complete this process by the end of the second calendar quarter of 1999. Regardless of the responses that the Company receives from such third parties, the Company is establishing contingency plans to reduce the Company's exposure resulting from the non-compliance of third parties. First, the Company plans to build inventories of critical and/or important components prior to January 1, 2000, and thereby decrease the Company's dependence on suppliers that are not Year 2000 compliant. Second, the Company plans to review delivery schedules with its major customers, commencing in the third calendar quarter of 1999. Such review should enable customers to accept ordered products after January 1, 2000, even if their internal computer systems are not operating properly.

The Company estimates that, through March 31, 1999, it has spent less than \$50,000 to remediate Year 2000 issues in its IT systems, and the Company estimates that it will spend less than an additional \$100,000 to remediate Year 2000 issues in its IT systems. Additionally, the Company accelerated into fiscal 1999 the planned replacement of its E-mail software, and is currently implementing the planned replacement of its financial systems software to avoid potential Year 2000 problems. For the development and deployment of SMES system computer programs to remedy Year 2000 problems, the Company has spent, through March 31, 1999, approximately \$15,000 and estimates it will spend an additional \$10,000 to complete such program development and deployment. All of such expenditures are included in the budgets of the various departments of the Company tasked with various aspects of the Year 2000 project. No IT projects have been deferred due to the Company's Year 2000 efforts.

Finally, the Company is in the process of developing contingency plans to be implemented as part of its efforts to identify and correct any Year 2000 compliance problems. Such plans are expected to be completed by the end of the third calendar quarter of 1999.

The Company does not currently believe that any of the foregoing will have a material adverse effect on its financial condition or its results of operations. However, the process of evaluating the Company's products and third party products and systems is ongoing. Although not expected, failures of critical suppliers, critical customers, critical IT systems, critical non-IT systems, or products sold by the Company (including any delay in the deployment of SMES computer program upgrades) could have a material adverse effect on the Company's financial condition or results of operations. Year 2000 Compliance has many issues and aspects, not all of which the Company is able to accurately forecast or predict. There is no way to assure that Year 2000 Compliance will not have adverse effects on the Company, some of which could be material. Many of the Company's statements related to Year 2000 are forward-looking statements and actual results could differ materially from those anticipated above.

FUTURE OPERATING RESULTS

The Company does not provide forecasts of its future financial performance. However, various statements included herein, as well as other statements made from time to time by Company representatives, which relate to future matters (including but not limited to statements concerning the future commercial success of the Company) constitute forward looking statements and are made under the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. There are a number of important factors which could cause 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. Some of the Company's products are in the early stages of commercialization and testing, while others are still under development. 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 SMES products. There are a number of technological challenges that the Company must successfully address to complete any of its commercialization and development efforts. 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 timely developed and commercialized, will be technically or commercially successful.

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, or that the market demands currently anticipated by the Company for its HTS and LTS products will develop.

History of Losses and Uncertainty of Financial Results. The Company has incurred net losses in each year since its inception. 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.

Uncertainties Regarding Proprietary Rights. The Company expects that some or all of the HTS materials used in the manufacture of its products, and certain aspects of the technologies used 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. 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. Any litigation by the Company to contest the validity or scope of such patents is likely to involve significant expense and may not be successful.

Competition and Technological Change. The superconductivity industry is characterized by rapidly changing and advancing technology. 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 Intermagnetics General Corporation and 3M. 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 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. In addition, the development

of new technologies could render HTS and LTS products obsolete. 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 HTS and power quality markets develop, other large industrial companies may enter these fields and compete with the Company.

Future Capital Needs. The Company believes, based upon its current business plan, that its current cash and marketable securities should be sufficient to fund the Company's operations as planned for the next two 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.

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. 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. There can be no assurance that the Company will be able to make the transition to commercial production successfully or 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.

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 or that any such relationships, if established, will be technologically or commercially successful.

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.

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. 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.

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Stockholders of American Superconductor Corporation:

In our opinion, the accompanying consolidated balance sheets as of March 31, 1999 and 1998 and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended March 31, 1999 present fairly, in all material respects, the consolidated financial position of American Superconductor Corporation (the "Company") at March 31, 1999 and 1998, and the consolidated results of its operations and its cash flows for the three years in the period ended March 31, 1999, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audit. We did not audit the financial statements of Superconductivity, Inc., a wholly-owned subsidiary, for the 12 months ended December 31, 1996, which statements reflect net revenues constituting 32% of consolidated net revenue for the year ended March 31, 1997. Those statements were audited by other auditors whose report thereon has been furnished to us, and our opinion expressed herein, insofar as it relates to the amounts included for Superconductivity, Inc., is based solely on the report of the other auditors. We conducted our audit of these statements in accordance with generally accepted auditing standards, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for the opinion expressed

PricewaterhouseCoopers LLP

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts May 11, 1999

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

Board of Directors Superconductivity, Inc. Middleton, Wisconsin

We have audited the accompanying balance sheet of Superconductivity, Inc., as of December 31, 1996, and the related statements of operations, shareholders' equity (deficit), and cash flows for the year then ended (not presented separately herein). These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of Superconductivity, Inc., as of December 31, 1995, and for the year then ended, were audited by other auditors whose report dated February 29, 1996, expressed an unqualified opinion on those statements.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Superconductivity, Inc., as of December 31, 1996, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles. We have not audited the financial statements of Superconductivity, Inc., for any period subsequent to December 31, 1996.

/s/ Smith & Gesteland, LLP

Madison, Wisconsin February 7, 1997

AMERICAN SUPERCONDUCTOR CORPORATION

CONSOLIDATED BALANCE SHEETS

	March 31,		
	1999	1998	
ASSETS			
Current assets: Cash and cash equivalents	4,099,211 5,024,552	\$ 1,842,142 2,991,635 3,229,973 545,428	
Total current assets Property and equipment: Equipment		8,609,178 12,502,756	
Furniture and fixtures	1,243,894 2,657,188	946,630 1,980,090	
Less: accumulated depreciation			
Property and equipment, net	6,602,829 287,110	4,422,900 6,167,030 345,940 6,167	
Total assets		\$ 19,551,215 =========	
LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities: Accounts payable and accrued expenses Deferred revenue	\$ 4,171,948 	\$ 3,333,462 187,285 29,609	
Total current liabilities		3,550,356	
Authorized shares-50,000,000; issued and outstanding shares-15,378,656 in 1999 and 11,756,793 in 1998		87,961,911 (1,328,446) (92) (73,891,875)	
Total stockholders' equity		12,859,066	
Total liabilities and stockholders' equity	\$ 48,130,303 =========	\$ 19,551,215 ========	

The accompanying notes are an integral part of the consolidated financial statements.

AMERICAN SUPERCONDUCTOR CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

Year	ended	March	31,
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	1999	1998	1997
_			
Revenues: Contract revenue Product sales and prototype	\$ 9,238,013	\$ 9,273,901	\$ 6,867,444
development contracts	1,888,426 130,863	841,903	2,936,567 746,546
Total revenues			
Costs of revenue	12,020,623 10,409,414		10,577,376 8,477,365
administrative	6,078,243	4,910,102	
Total costs and expenses Merger related fees Interest income Interest expense Feesterminated transaction Other income (expense), net	28,508,280 1,921,373 (9,827) 	27,883,916 (154,744) 781,599 (238,625)	23,345,241 (710,105) 1,177,386 (356,366) (669,627)
Net loss	\$(15,326,176)		
Net loss per common share Basic		\$ (1.06)	
Diluted	\$ (1.01)		\$ (1.27)
Weighted average number of common shares outstanding			
Basic	15,131,679		
Diluted	15,131,679	11,658,034	10,497,643

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended March 31,				
	1999	1998	1997		
Cash flows from operating activities: Net loss	\$ (15 326 176)	\$(12,378,188)	¢/13 377 173\		
Adjustments to reconcile net loss to net cash used by operations:	7 (13,320,170)	7 (12,370,100)	¥ (13,3/1,1/3)		
Merger with AET		(90,569)			
Forgiveness of notes receivable Depreciation and amortization Write down of inventory and	1,939,189	349,368 2,113,617	206,744 1,983,531		
equipment			444,538		
property and equipment		24,569	(9,697)		
Deferred compensation expense		25,480			
Deferred warrant costs	328,263				
Stock compensation expense Interest accrued on convertible	204,511	90,842			
debentures			230,746		
Accounts receivable	(1,107,576)	(462,031)	(1,343,043)		
Inventory	(1,794,579)	159,289	(973,571)		
Prepaid expenses and other current assets	6,943	(205,631)	(73 , 592)		
Accounts payable and accrued expenses	030 106	(1,877,010)			
Note payable-line of credit			2,082,137		
Deferred revenue	(187,285)	(1,974,510)			
Net cash used by operating					
Cash flows from investing activities:	(15,098,224)				
Notes receivable Repayment of notes receivable		(18,951) 53,190			
Purchase of property and		33,130	100,000		
equipmentPurchase of long-term marketable	(3,613,900)	(2,889,245)	(1,451,142)		
securities Sale of long-term marketable	(442,334)	(3,000,000)			
securities Net investment in sales-type		12,455,443	6,730,101		
lease Decrease (increase) in other	58 , 830	(345,940)			
assets	(488,177)	35,861	(37,130)		
Net cash (used in) provided by investing activities Cash flows from financing activities:	(4,485,581)	6,290,358	5,259,014		
Payments on notes payable Proceeds from notes payable	(29 , 609)	(643,819) 	(131,049) 5,000		
Payments on long-term debt Proceeds from 10% convertible	(3,141,793)	4,693			
debentures Net proceeds from issuance of			1,200,000		
common stock	45,882,207	10,453,045			
Net cash provided by financing activities Net increase (decrease) in cash and	42,710,805	9,813,919	1,163,048		
	23,127,000	1,265,182	(3,676,247)		
beginning of year Effect of SI's excluded results	1,842,142	584,804 (7,844)			
Cash and cash equivalents at end of year			\$ 584,804		
Supplemental schedule of cash flow information:					
Cash paid for interest Noncash issuance of common stock		\$ 135,906 \$ 165,954	\$ 125,620 		

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional		Deferred	Other		Total
	Number of Shares	Par Value	Paid-in Capital	Deferred Compensation	Warrant	Comprehensive Income(Loss)	Accumulated Deficit	Stockholders' Equity
Balance at March 31, 1996	10,422,996	104.230	75,663,526	(50,960)		(57,368)	(45,879,546)	29,779,882
Exercise of stock options	82,122	821	88,275	() ,)		(= , = = = ,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	89,096
Amortization of deferred compensation				25,480				25,480
Deferred warrant costs Amortization of			636,878		(636,878)			
deferred warrant costs					79,613			79,613
Unrealized loss on investments Translation						(81,691)		(81,691)
adjustment Net loss						(14,494)	(13,377,173)	(14,494) (13,377,173)
Balance at March 31,	10,505,118	105,051	76,388,679	(25,480)	(557,265)	(153,553)	(59,256,719)	\$ 16,500,713
Exercise of stock options Investment by EDF Merger with AET	166,794 1,000,000 68,306	1,668 10,000 683	511,385 9,929,994 9,317				(100,569)	513,053 9,939,994 (90,569)
Stock compensation expense Amortization of	9,075	91	90,751					90,842
deferred compensation Deferred warrant				25,480				25,480
costsAmortization of deferred warrant			953,638		(953,638)			0
costs Exercise of			3,035		182,457			185,492
warrants Unrealized gain on investments Cumulative	7,500	75	75,112			176,367		75,187 176,367
translation adjustment						(22,906)		(22,906)
Effect of SI's excluded results Net loss							(2,156,399) (12,378,188)	
Balance at March 31, 1998 Exercise of stock	11,756,793	\$117,568	\$ 87,961,911	\$	\$(1,328,446)	\$ (92)	\$(73,891,875)	\$ 12,859,066
options Secondary public	99 , 976	1,000	266,250					267,250
offering of common stock	3,504,121	35,041	45,579,916					45,614,957
expenseAmortization of deferred warrant	17,766	178	204,333					204,511
costs			18,208		310,055			328,263
<pre>investments Cumulative translation</pre>						(6 , 535)		(6,535)
adjustment Net loss						17,019	(15,326,176)	17,019 (15,326,176)
Balance at March 31, 1999			\$134,030,618 ======	\$ ======	\$(1,018,391) =======	\$ 10,392 ======	\$(89,218,051) =======	\$ 43,958,355 ======

The accompanying notes are an integral part of the consolidated financial statements.

AMERICAN SUPERCONDUCTOR CORPORATION

NOTES TO CONSOLIDATED STATEMENTS

1. Nature of the Business

American Superconductor Corporation (the "Company"), which was formed on April 9, 1987, develops and commercializes high temperature superconducting ("HTS") wire, wire products and systems, including current leads, multistrand conductors, electromagnetic coils, and electromagnets and subsystems comprising electromagnetics integrated with appropriate cooling systems. The focus of the Company's development and commercialization efforts is on electrical equipment for use by electric utilities and industrial users of electrical power. For large-scale applications, the Company's development efforts are focused on power transmission cables, motors, transformers, generators and fault current limiters. In the area of power quality, the Company is focused on marketing and selling commercial low temperature superconducting magnetic energy storage ("SMES") devices, on development and commercialization of new SMES products, and on development of power electronic subsystems and engineering services for the power quality marketplace. The Company operates in two business segments.

The Company has devoted a significant part of its efforts to research and development. The Company has recorded contract revenue related to research and development contracts of \$9,238,013, \$9,273,901 and \$6,867,444 for the fiscal years ended March 31, 1999, 1998 and 1997, respectively. As discussed in Note 11, a significant portion of this contract revenue relates to development contracts with two companies, Pirelli Cavi E Sistemi S.p.A. ("Pirelli") and Electricite de France (EDF), who (through affiliated companies) are stockholders of the Company. Included in costs of revenue are research and development expenses of approximately \$7,335,000, \$7,494,000 and \$5,322,000 for the fiscal years ended March 31, 1999, 1998, and 1997, respectively. Selling, general and administrative expenses also included as costs of revenue for the fiscal years ended March 31, 1999, 1998 and 1997, were approximately \$2,741,000, \$3,394,000 and \$2,186,000, respectively.

2. Summary of Significant Accounting Policies

A summary of the Company's significant accounting policies follows:

Basis of Presentation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany balances are eliminated. As described more fully in Note 3, on April 8, 1997, the Company acquired Superconductivity, Inc. ("SI") through the merger of a wholly owned subsidiary of the Company into SI. These consolidated financial statements have been prepared following the pooling of interests method of accounting and reflect the combined financial position, operating results and cash flows of ASC and SI as if they had been combined for all periods presented. Prior to the merger, SI's fiscal year end was December 31. Effective with the merger, SI's fiscal year end was changed to March 31 to conform with ASC's fiscal year end. The audited results of SI's operations for the twelve month period ended December 31, 1996 are included in the Company's results of operations for the fiscal year ended March 31, 1997. As a result, SI's results of operations for the quarter ended March 31, 1997 are not included in the consolidated statements of operations. Additionally, SI's cash flow activity for the three months ended March 31, 1997 is listed as "Effect of SI's excluded results" the Consolidated Statement of Cash Flows to account for the difference in the beginning cash and cash equivalents between December 31, 1996 and March 31, 1997. 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 expenses of \$1,457,054.

On July 31, 1997 the Company completed a transaction in which the Company acquired all the outstanding stock of Applied Engineering Technologies, Ltd. ("AET"). The transaction has been accounted for under the pooling of interests method of accounting. Due to the immaterial effect on the accompanying consolidated

AMERICAN SUPERCONDUCTOR CORPORATION

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

financial statements, the prior periods have not been adjusted to reflect the effect on the combined financial position, operating results and cash flows of the Company.

Certain prior year amounts have been reclassified to be consistent with current year presentation.

Cash Equivalents

The Company considers all highly liquid debt instruments with original maturities of three months or less to be cash equivalents. Cash equivalents consist of government obligations, short-term certificates of deposit and repurchase agreements.

Accounts Receivable

Due to scheduled billing requirements specified under certain contracts, a portion of the Company's accounts receivable balance at March 31, 1999 and 1998 was unbilled. The unbilled portion included in the accounts receivable balance was approximately \$1,695,000 or 41% of total accounts receivable and \$1,611,000 or 54% of total accounts receivable at March 31, 1999 and 1998, respectively. The Company expects the unbilled balance at March 31, 1999 to be billed in the first quarter of next year.

Long-term Marketable Securities

Long-term marketable securities, with original maturities of more than 12 months when purchased, consist primarily of U.S. Treasury Notes and a U.S. government agency security. These marketable securities are stated at amortized cost plus accrued interest which approximates fair value. Interest income is accrued as earned.

Inventories

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

Property and Equipment

Equipment and Furniture and fixtures are recorded at cost and depreciated using the straight-line method over their estimated useful lives, which range from 3 to 7 years. Leasehold improvements are recorded at cost and amortized over the shorter of the useful life of the improvement or the remaining term of the lease. Expenditures for maintenance and repairs are expensed as incurred. Upon retirement or other disposition of assets, the costs and related accumulated depreciation are eliminated from the accounts and the resulting gain or loss is reflected in income.

Other Assets

Other assets at March 31, 1999 and 1998 consisted of the following:

	1999	1998
Licenses		
Patents Deposits	•	 6,167
Less: accumulated amortization	,	346,914 340,747
	\$494,344 ======	\$ 6,167 ======

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

Licenses and patents are amortized to expense on a straight-line basis over periods not exceeding 7 years. The carrying value of intangible assets is periodically reviewed by the Company and impairments are recognized when the expected future operating cash flows derived from such intangible assets is less than their carrying value.

Effective March 31, 1998, the Company signed an agreement with Lucent Technologies, Inc. ("Lucent") granting the Company a royalty-bearing, non-exclusive, worldwide license for superconductor wire under Lucent's portfolio of high temperature superconductor patents and patent applications. The license runs from March 31, 1998 until the expiration of the last-to-expire patent in the portfolio.

Revenue Recognition

The Company has entered into contracts to perform research and development (see Note 11). Revenues from these contracts and prototype development contracts are recognized utilizing the percentage of completion method, measured by the relationship of costs incurred to total contract costs. Costs include direct engineering and development costs and applicable overhead. The Company generally recognizes its revenue on product sales upon shipment, or, for certain programs, on the percentage of completion method of accounting. Customer deposits are recorded as deferred revenue until the related sales are recognized. The Company rents equipment to customers on a monthly basis and recognizes rental income as it is earned.

Research and Development Costs

Research and development costs are expensed as incurred.

Income Taxes

Deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each fiscal year end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce net deferred tax assets to the amount expected to be realized. No current or deferred income taxes have been provided because of the net operating losses incurred by the Company since its inception.

Computation of Net Loss per Common Share

The Company adopted Statement of Financial Accounting Standards ("SFAS") No. 128, "Earnings Per Share" effective for the quarter ended December 31, 1997. SFAS No. 128 requires presentation of basic earnings per share ("EPS") and, for companies with complex capital structures, diluted EPS. Basic EPS excludes dilution and is computed by dividing net income available to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted EPS includes dilution and is computed using the weighted average number of common and dilutive common equivalent shares outstanding during the period. Common equivalent shares include the effect of the exercise of stock options and warrants. For the years ended March 31, 1999, 1998 and 1997, common equivalent shares of 655,843, 736,249 and 688,589, respectively were not included in the calculation of diluted EPS as they were considered antidilutive. The Company has restated net loss per share for all periods presented in the accompanying consolidated financial statements to reflect net loss per share on both a basic and a diluted basis.

Foreign Currency Translation

The functional currency of the Company's foreign subsidiary is the local currency. The assets and liabilities of this operation are translated into U.S. dollars at the exchange rate in effect at the balance sheet date and income

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

and expense items are translated at average rates for the period. Cumulative translation adjustments are excluded from net loss and shown as a separate component of stockholders' equity. Foreign currency transaction gains and losses are included in the net loss and have not been material to date.

Risks and Uncertainties

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and would impact future results of operations and cash flows.

The Company invests its cash and cash equivalents with high-credit, quality financial institutions and invests primarily in investment grade-marketable securities, including, but not limited to, government obligations, repurchase agreements and money market funds.

The Company's accounts receivable are comprised mostly of amounts owed by government agencies and some commercial companies. The Company does not require collateral or other security to support customer receivables. The Company believes any credit losses will not be material.

3. The Merger

In April 1997, the Company completed a transaction (the "Merger") with SI. This transaction, in which the Company acquired all of the outstanding stock of SI by means of a merger of a subsidiary of the Company into SI, was accounted for as a pooling of interests. The merger was effected through the exchange of 942,961 shares of the Company's common stock for all of the issued and outstanding shares of SI, based on a merger exchange ratio of 0.3292 shares of the Company's common stock for each share of SI common stock.

All fees and expenses related to the merger were expensed as required under the pooling of interests accounting method. Charges of \$75,767 in fiscal 1998 and \$710,105 in fiscal 1997 have been recorded in the consolidated statement of operations reflecting merger expenses incurred in the respective period. SI incurred merger expenses of \$1,457,054 in the quarter ended March 31, 1997. As noted in Note 2, SI's results of operations for the quarter ended March 31, 1997 are not included in the Company's consolidated statement of operations. Merger expenses consist principally of financial advisory, legal and accounting fees.

Combined and separate results of the Company and SI for the period preceding the merger were as follows (in thousands):

	ASC	SI 	Combined
Year ended March 31, 1997 Revenues	¢ 7 175	¢ 2 276	¢ 10 EE1
Net loss			

NOTES TO CONSOLIDATED STATEMENTS--(Continued)

4. Long-term Marketable Securities

Long-term marketable securities at March 31, 1999 and 1998 consisted of the following:

U.S. government and government agency securities

	1999	1998
Aggregate Cost	E76 6E0	¢6 124 224
Aggregate Cost\$6 Fair Value\$6	•	
Gross Unrealized Gain\$		

The Company's long-term marketable securities are classified as available-for-sale securities and, accordingly, are recorded at amortized cost plus accrued interest which approximates fair value. The difference between cost and fair value is included in stockholders' equity. All of these securities mature in one to three years.

5 Inmontonios

Inventories at March 31, 1999 and 1998 consisted of the following:

	1999	1998
Raw materials	1,843,323	2,388,705
	\$5,024,552	
	========	========

6. Accounts payable and accrued expenses

Accounts payable and accrued expenses at March 31, 1999 and 1998 consisted of the following:

	1999	2330
Accounts payable	274,009	
Accrued vacation	414,891	319,500
	\$4,171,948	\$3,333,462
	========	========

7. Long-term Debt

Long-term debt at March 31, 1998 consisted of the following:

	1998
Subordinated notes, interest payable semiannually at 7%, due April 1999	\$3,141,793
monthly at 7.5%, with principal due April 1998	29 , 609
Less amount due within one year	3,171,402 29,609
	\$3,141,793 =======

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

The Company's subordinated notes were retired following the completion of the public offering during April 1998 (See Note 9).

8. Income Taxes

The reconciliation between the statutory federal income tax rate and the Company's effective income tax rate is shown below.

	Mar	ch 31		
	1999	1998	1997	
Statutory federal income tax rate			(34)%	
State income taxes, net federal benefit Nondeductible expenses	1 %	1 %	1 %	
Valuation allowance				
Effective income tax rate	0 %	0 %	0 %	

The principal components of the Company's deferred tax liabilities and assets were the following:

	March 31		
	1999	1998	
Deferred tax assets: Net operating loss			
carryforward	\$ 32,815,000	\$ 28,298,000	
and other credits	2,597,000	2,349,000	
Depreciation and other	995,000	911,000	
Valuation allowance	(36,407,000)	(31,558,000)	
Net			

At March 31, 1999 the Company had available for federal income tax purposes net operating loss carryforwards of approximately \$84,601,000, which expire in years 2005 through 2018. This includes approximately \$16,284,000 of SI acquired net operating losses which begin to expire in 2003 and their utilization by the Company will be subject to annual limitations. Research and development and other credit carryforwards amounting to approximately \$2,597,000 are available to offset federal and state income taxes and expire in years 2005 through 2018. Under current tax law, the utilization of net operating loss carryforwards may be subject to annual limitations in the event of certain changes in ownership.

9. Stockholders' Equity

In April 1997, the Company entered into a strategic alliance agreement with an affiliate of EDF under which that affiliate purchased one million shares of the Company's common stock at \$10 per share.

The Offering

On April 22, 1998 the Company completed a public offering of 3,504,121 shares of its common stock and received net proceeds (before deducting offering expenses) of \$46,114,000, of which approximately \$3,142,000 was used to retire the Company's subordinated notes.

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

Stock-Based Compensation Plans

Net loss (in thou-

The Company has adopted the disclosure only option under Statement of Financial Accounting Standards (SFAS) 123 "Accounting for Stock-Based Compensation" as of March 31, 1997. Pro forma information regarding net income and earnings per share is required by SFAS 123, and has been determined as if the Company had accounted for its stock options under the fair value method of that Statement. Consistent with the method of SFAS 123, the Company's net loss and net loss per share would have increased to the pro forma amounts indicated below:

F	or	the	fiscal	years	ended	March	31,
	1	999		1998	3	19	97

sands)	As reported Pro forma		(12,378) (13,725)	, , ,
Loss per share	As reported Pro forma	(1.01) (1.19)	(1.06) (1.18)	(1.27) (1.34)

The pro forma amounts include the effects of all activity under the Company's stock-based compensation plans since April 1, 1996. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions used for grants; a weighted average risk free interest rate of 5.3%, 5.6% and 6.4% in fiscal 1999, fiscal 1998 and fiscal 1997, respectively; expected stock price volatility of 60% for fiscal 1999, 50% for fiscal 1998 and 45% for fiscal 1997; no dividends; and a weighted average life of the options of 5 years. The weighted average fair value of options granted during fiscal 1999, fiscal 1998 and fiscal 1997 was \$7.36 per share, \$5.74 per share and \$5.02 per share, respectively. The above amounts may not be indicative of future expense because amounts are recognized over the vesting period and the Company expects it will have additional grants and related activity under these plans in the future.

The Company has six stock option plans including three Directors' Plans. The stock option plans (the "Plans") include the 1987 Stock Plan (the "1987 Plan"), the 1993 Stock Option Plan (the "1993 Plan"), the 1996 Stock Incentive Plan (the "1996 Plan"), the 1991 Director Stock Option Plan (the "1991 Director Plan"), the 1994 Director Stock Option Plan (the "1994 Director Plan"), and the 1997 Director Stock Option Plan (the "1997 Director Plan"). The Plans are administered by the Compensation Committee of the Board of Directors and permit the Company to sell or award common stock or to grant stock options for the purchase of common stock.

The Plans provide for the issuance of incentive stock options and non-qualified stock options to purchase the Company's common stock. In the case of incentive stock options, the exercise price shall be equal to at least the fair market value of the common stock, as determined by the Board of Directors, on the date of grant. The 1991, 1994 and 1997 Director Plans are stock option plans for members of the Board of Directors who are not also employees of the Company ("outside directors"). The 1997 Director Plan provides for the automatic grant of stock options for the purchase of common stock by outside directors at an exercise price equal to fair market value at the grant date. No further grants may be made under the 1987 Plan, the 1991 Director Plan or the 1994 Director Plan.

Options granted under the Plans generally become exercisable in equal annual increments over a four or five year period and expire 10 years from the date of grant or from two to three months after termination of employment.

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

The following table summarizes information about stock options outstanding at March 31, 1999.

Out	Exercisable				
Range of Exercise Price	Number Outstanding at 3/31/99	Weighted Average Remaining Contractual Life		Number Exercisable at 3/31/99	Weighted Average Exercise Price
\$ 0.76- 4.65 4.65- 9.30 9.30-13.94 13.94-18.58 18.58-22.67	2,619 399,391 2,051,770 396,516 385,230	1.3 4.4 8.0 5.0	\$ 1.38 8.01 11.42 16.84 21.25	2,619 316,591 576,940 352,567 314,340	\$ 1.38 7.84 11.23 16.95 21.22
\$ 0.76-22.67	3,235,526 ======			1,563,057	

The following table summarizes the information concerning currently outstanding and exercisable options:

		Weighted average Exercise Price	Exercisable
Outstanding at March 31, 1996	1,992,755	\$14.21 	652 , 885
Granted Exercised Canceled	(74,880)	1.11	
Outstanding at March 31, 1997	2,545,665		896,895
Granted Exercised Canceled	576,450 (166,794) (330,831)	1.81	
Outstanding at March 31, 1998	2,624,490	\$12.63	1,215,883
Granted Exercised Canceled	(99,976)	2.67	
Outstanding at March 31, 1999	-,, -	\$12.82 =====	1,563,057
Available for grant at March 31, 1999			1,664,789

Stock Purchase Warrants

The Company recorded an increase to additional paid-in capital and a corresponding charge to deferred warrant costs of approximately \$336,000 in January 1998 related to the issuance of stock purchase warrants for 250,500 shares of common stock at an exercise price of \$10.20 per share which become exercisable over a five-year period following the date of grant. These warrants were granted in consideration of ongoing financial services being provided to the Company. Expense related to these warrants was approximately \$67,000 and \$17,000 for the fiscal years ended March 31, 1999 and 1998, respectively.

10. Commitments

The Company rents its headquarters in Westborough, Massachusetts under an operating lease, which expires in May 2003. The Company also rents operating facilities near Madison, Wisconsin under two leases which

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

expire on December 31, 2003. The Company has an option to extend these leases for additional five-year periods. Under all leases the Company pays for real estate taxes, certain insurance coverage and operating expenses.

In October 1992, the Company entered into a five-year collaborative technology development agreement with Superlink Joint Venture ("Superlink"). In October 1997, the Company extended the technology development agreement with Superlink for an additional six-year period through September 2003, with payments totaling \$220,000 due the first year and payments of \$300,000 due each year for the next five years. The Company has the right to terminate this agreement under certain conditions.

Rent expense under the leases mentioned above and research and development expenses related to the technology agreement with Superlink Joint Venture were as follows:

	1999	1998	1997
Rent expense	\$1,154,000	\$531,546	\$520,850
Research and development expenses	\$ 220,000	\$260,593	\$135,480

Minimum future lease and license fee commitments at March 31, 1999 were as follows:

For the years ended March 31	Total
2000	1,285,874
2003	

11. Research and Development Agreements

In fiscal 1998, the Company entered into four-year research and development contracts with Asea Brown Boveri (ABB) and EDF, an affiliate of whom is a stockholder of the Company, to develop HTS wire for power transformers. The agreements, both of which expire on March 31, 2001 (subject to earlier termination by either party), obligate ABB and EDF to each pay an aggregate of \$5 million to the Company. Through March 31, 1999, ABB had paid the Company \$3,300,000 and EDF had paid the Company \$3,400,000. In March 1996, the Company extended its development contract with Pirelli, a stockholder of the Company, to jointly develop high temperature superconducting cable wires. The Company recorded revenues under these contracts as follows:

	1999	1998	1997
Inco			\$ 825,000
Pirelli	\$2,000,000	\$2,500,000	2,500,000
ABB	1,025,000	1,275,000	1,000,000
EDF	1,600,000	1,800,000	
	\$4,625,000	\$5,575,000	\$4,325,000

Future funding commitments under these contracts are \$4,050,000 over the next three years, \$1,700,000 from ABB, \$1,600,000 from EDF, and \$750,000 from Pirelli. At March 31, 1999, \$375,000 due under the development contract with Pirelli was included in Accounts Receivable.

In March 1996, the Company entered into a new strategic alliance with the Electric Power Research Institute (EPRI) to develop and commercialize a possible next-generation HTS wire. In March 1996, under the first phase

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

of the agreement, the Company granted a warrant for 100,000 shares of common stock to EPRI, which becomes exercisable over a five-year period following the date of grant. In March 1998, under the second phase of the agreement, the Company granted to EPRI another warrant to purchase 110,000 shares of common stock of the Company, which become exercisable over the next five years. The Company will receive exclusive license rights to intellectual property from EPRI. This agreement is subject to early termination if certain conditions are not met. The Company recorded an increase to additional paid-in capital and a corresponding charge to deferred contract costs of \$618,000 and \$637,000 in fiscal 1998 and 1997, respectively, relating to these warrants. Warrant expense related to these agreements was approximately \$243,000, \$166,000 and \$80,000 for the fiscal years ended March 31, 1999, 1998 and 1997, respectively.

12. Cost sharing arrangements

The Company has entered into several cost-sharing arrangements with various agencies of the United States government. Funds paid to the Company under these agreements are used to directly offset the Company's research and development and selling, general and administrative expenses and to purchase capital equipment. The Company recorded costs and funding under these agreements of \$4,325,000 and \$1,953,000, respectively, for fiscal 1999, of \$3,139,000 and \$1,771,000, respectively, for fiscal 1998 and \$3,197,000 and \$1,706,000, respectively, for fiscal 1997. At March 31, 1999, total funding received to date under these agreements was \$10,583,000. Future funding expected to be received under existing agreements is approximately \$2,718,000 over the next three years subject to continued future funding allocations.

13. Related Party Transactions

In fiscal 1995 the Company made a series of loans to an officer of the Company in the aggregate amount of \$671,000 including accrued interest. The Compensation Committee of the Board of Directors forgave \$206,700 and \$104,800 in fiscal years 1997 and 1996, respectively, of principal and accrued interest of the loans. In addition, the officer repaid \$100,000 of principal in November 1996. The Company has recorded compensation expense of \$349,400 in fiscal 1998 as a result of the forgiveness of the remaining principal and interest on the loan by the Compensation Committee on May 14, 1998.

14. Employee Benefit Plans

The Company has implemented two deferred compensation plans under Section 401(k) of the Internal Revenue Code. Any contributions by the Company are discretionary. The company instituted a stock match program in July 1998 under which the Company matched 25% of the first 4% of eligible contributions to the plan. The Company recorded expense of \$80,575 and a corresponding charge to additional paid-in capital related to this program. No contributions were made in fiscal 1998 or 1997. The Company does not have post-retirement or post-employment benefit plans.

15. Write down of inventory and equipment

A provision was recorded for certain work-in-process inventory of \$445,000 for the year ended March 31, 1997. This provision was recorded due to the inventory not meeting required performance specifications. This provision was included in costs of revenue for the year ended March 31, 1997.

16. Comprehensive Loss

The Company has adopted Statement of Financial Accounting Standard No. 130, "Reporting Comprehensive Income", which requires that an entity include in total comprehensive income certain amounts which were previously recorded directly to stockholders' equity.

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

The Company's comprehensive loss was as follows:

	1999	1998	1997
Net Loss	\$(15,326,176)	\$(12,378,188)	\$(13,377,173)
(loss)	10,484	153,461	(96,185)
Total comprehensive loss	\$(15,315,692)	\$(12,224,727)	\$ (13,473,358)

Other comprehensive income (loss) represents changes in foreign currency translation and unrealized gains and losses on investments.

17. Business Segment Information

The Company adopted Statement of Financial Accounting Standard No. 131, "Disclosures about Segments of an Enterprise and Related Information" ("FAS 131"), as of March 31, 1999. Prior year information was restated in conformity with this accounting standard. The Company has two reportable business segments as defined by FAS 131--High Temperature Superconducting ("HTS") business segment, and the Superconducting Magnetic Energy Storage ("SMES") segment.

The HTS business segment develops and commercializes HTS wire, wire products and systems. The focus of this segment's development effort is on power transmission cables, motors, transformers, generators and fault current limiters for large-scale applications.

The SMES business segment is focused on marketing and selling commercial low temperature SMES devices, on development and commercialization of new SMES products, and on development of power electronic subsystems and engineering services for the power quality and reliability marketplace.

The operating segment results for the HTS and SMES business segments are as follows:

Net Sales				1998	1997	
HTSSMES		1,509	,722	3,562,6		
Total						57
Operating Income (loss)	19	99		1998	1997	
						-
HTSSMES	(5,2	46,240)	(2	2,669,887)	\$(10,860,21 (1,934,46	
Total						4)

The segment assets for the HTS and SMES business segments are as follows:

	1999	1998
HTSSMES		
Total	\$48,130,303	\$19,551,215

The accounting policies of the business segments are the same as those described in Note $2 \, . \,$

NOTES TO CONSOLIDATED STATEMENTS -- (Continued)

18. New Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities". The Statement establishes accounting and reporting standards requiring that every derivative instrument (including certain derivative instruments embedded in other contracts) be recorded in the balance sheet as either an asset or liability measured at its fair value. The Statement requires that changes in the derivative instrument's fair value be recognized currently in earnings unless specific hedge accounting criteria are met. Special accounting for qualifying hedges allows a derivative's gains and losses to offset related results on the hedged item in the income statement, and requires that a company must formally document, designate and assess the effectiveness of transactions that receive hedge accounting.

Statement 133 is effective for fiscal years beginning after June 15, 1999. In June 1999, FASB issued an exposure draft to defer the effective date to fiscal years beginning after June 15, 2000. A company may also implement the Statement as of the beginning of any fiscal quarter after issuance. Statement 133 cannot be applied retroactively. Statement 133 must be applied to (a) derivative instruments and (b) certain derivative instruments embedded in hybrid contracts that were issued, acquired or substantively modified after December 31, 1997 (and, at the company's election, before January 1, 1998). The Company's management believes the impact on its financial statements of adopting Statement 133 will be immaterial.

In March 1998, the American Institute of Certified Public Accountants ("AICPA") issued Statement of Position ("SOP") 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use." SOP 98-1 establishes criteria for determining which costs of developing or obtaining internal-use computer software should be charged to expense and which should be capitalized. The SOP is effective for fiscal years beginning after December 15, 1998, and establishes criteria for capitalizing certain internal use software costs. The Company's management believes the impact on its financial statements of adopting SOP 98-1 will be immaterial.

Description

Exhibit No.

Page No.

3.1**	Restated Certificate of Incorporation of the
2 0 1	Registrant
3.2*	By-laws of the Registrant, as amended to date
4.1*	Specimen Certificate for shares of Common Stock, \$.01 par value, of the Registrant
\$\$10.1*	Employment Agreement dated as of December 4, 1991 between the Registrant and Gregory J. Yurek
\$\$10.2*	Employment Agreement dated as of December 4, 1991 between the Registrant and Alexis P. Malozemoff
10.3*	Form of Employee Nondisclosure and Developments Agreement
\$\$10.4*	Employee Nondisclosure and Developments Agreement dated as of December 26, 1990 between the Registrant and Alexis P. Malozemoff
\$\$10.5*	Noncompetition Agreement dated as of July 10, 1987 between the Registrant and John Vander Sande
\$10.6*	License Agreement between the Registrant and MIT dated as of July 6, 1987
\$10.7*	License Agreement between the Registrant and MIT dated as of January 31, 1989
\$10.8*	License Agreement dated as of August 1, 1991
\$10.9*	License Agreement dated as of September 1, 1991
\$10.10**	Second Amendment dated as of January 27, 1992 between the Registrant and MIT amending the License Agreement dated as of July 6, 1987 between the Registrant and MIT
\$10.11***	Technology Development and Patent Licensing Agreement dated October 7, 1992 among the Registrant and Electricity Corporation of New Zealand Limited and Industrial Research Limited
\$\$10.12***	Employment Agreement dated as of December 31, 1992 between American Superconductor Europe GmbH and Dr. Gero Papst
10.13***	Lease dated March 9, 1993 between CGLIC on Behalf of its Separate Account R, as Landlord, and the Registrant
10.14+	First Amendment to Lease between CGLIC, on Behalf of its Separate Account R, as Landlord, and the Registrant, as Tenant dated October 27, 1993
\$\$10.15***	1993 Stock Option Plan
10.16++	Agreement dated January 1, 1994 between Pirelli Cavi S.p.A. and the Registrant
\$10.17###	Agreement between Pirelli Cavi S.p.A. and American Superconductor Corporation, dated October 1, 1995
10.18++	Technology Development and Patent Licensing Agreement, First Amendment dated August 7, 1993 among the Registrant and Electricity Corporation of New Zealand and Industrial Research Limited
10.19+++	Subcontract Agreement effective as of September 30, 1993 by and between the Registrant and Reliance Electric Company
\$10.20#	Fourth Amendment, dated May 15, 1995, to the Exclusive License Agreement between the Registrant and MIT dated July 6, 1987

1

- \$\$10.21## --1996 Stock Incentive Plan
- \$10.22### --Management Agreement between Electric Power Research Institute, Inc. and American Superconductor Corporation, effective January 1, 1996
- \$10.23### --Technology License Agreement between Electric Power Research Institute, Inc. and American Superconductor Corporation, effective January 1, 1996
- \$10.24### --Warrant granted to Electric Power Research Institute, Inc. by American Superconductor Corporation, dated March 26, 1996.
- 10.25@ --Strategic Alliance Agreement by and among the Registrant and CHARTH (Compagnie Holding D'Applications Et De Realisations Thermiques Et Hydrauliques), dated as of April 1, 1997
- \$\$10.26@@ --1997 Director Stock Option Plan
- \$10.27@@ --Patent License Agreement between Lucent Technologies Inc. and the Registrant, dated as of March 31, 1998.
- --Agreement dated April 1, 1997 by and among Electricite de \$10.28@@ France and the Registrant
- \$10.29@@ --Agreement effective April 1, 1997 by and between ABB Transmission & Distribution Technology Ltd. and the Registrant
- --Subsidiaries 21.1
- 23.1 -- Consent of PriceWaterhouseCoopers LLP.
- 23.2 --Consent of Smith & Gesteland LLP
- 27.1 --Financial Data Schedule

- Incorporated by reference to Exhibits to the Registrant's Registration Statement on Form S-1 (File No. 33-43647).
- Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K filed with the Commission on June 29, 1992.
- $\ensuremath{^{\star\star\star}}$ Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K filed with the Commission on June 29, 1993.
- Incorporated by reference to Exhibits to the Registrant's Quarterly Report on Form 10-Q for the quarter ended December 31, 1993 filed with the Commission on January 26, 1994.
- Incorporated by reference to Exhibits to Amendment No. 1 to the Registrant's Quarterly Report on Form 10-Q/A for the quarter ended December 31, 1993 filed with the Commission on March 28, 1994.
- +++ Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K filed with the Commission on June 29, 1994.
- Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K filed with the Commission on June 29, 1995.
- Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K filed with the Commission on June 28, 1996.
- ### Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K/A filed with the Commission on March 10, 1997.
- Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K filed with the Commission on June 30, 1997.
- Incorporated by reference to Exhibits to the Registrant's Annual Report on Form 10-K filed with the Commission on June 26, 1998.
- Confidential treatment previously requested and granted with respect to certain portions, which portions were omitted and filed separately with the Commission.
- \$\$ Management contract or compensatory plan or arrangement required to be filed as an Exhibit to this Form 10-K.

EXHIBIT 21.1

Subsidiaries

- 1. American Superconductor Europe GmbH (*) - established in Germany
- 2.
- ASC Holding Corp. (*) incorporated in Delaware
 ASC Securities Corp. (**) incorporated in Massachusetts
 Superconductivity, Inc. (*) incorporated in Delaware 3.
- 4.
 - Wholly owned subsidiary of American Superconductor Corporation Wholly owned subsidiary of ASC Holding Corp.

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (File Nos. 33-44962, 33-44963, 33-64832, 33-74418, 33-86106, 33-86108, 333-39653, 333-37163 and 333-71539) of American Superconductor Corporation of our report dated May 11, 1999 relating to the financial statements which appears in this Annual Report on Form 10-K.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Boston, Massachusetts June 25, 1999

CONSENT OF INDEPENDENT ACCOUNTANTS

We consent to the incorporation of our report dated February 7, 1997, on our audit of the consolidated financial statements of Superconductivity, Inc., as of December 31, 1996, and for the year then ended, which report is included in this Registration Statement on Form 10-K into the company's previously filed Registration Statements on Form S-8 (file numbers 33-44962, 33-44963, 33-64832, 33-74418, 33-86106, 33-86108, 333-37163, 333-39653 and 333-71539).

/s/ Smith & Gesteland, LLP

SMITH & GESTELAND, LLP

Madison, Wisconsin June 25, 1999

YEAR		YEAR		
MAR	1-31-1999		MAR-31-1998	
	APR-01-1998		APR-01-1997	
	MAR-31-199	19	MAR-31-19	98
		24,969		1,842
	6,60	•	6,1	•
	4,099		2,99	
	4,000	0	2,33	0
	5,0		3	230
	34,631	25	8,609	250
	34,031	19,060	0,009	15 420
	(10 046)	19,000	(11 007)	15,429
	(12,946)		(11,007)	
	48,130		19 , 551	
4	,172		3,550	
		0		0
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		0		0
		154		118
	1.0	005	1.0	8 4 1
	43,	805	12	,/4l
48.130	43,			,741
48,130	43,	19,551		•
48,130	·			5,013
48,130	43, 11,257	19,551 1,888		5,013
48,130	11,257	19,551 1,888 1,914	15,129	5,013 4,603
48,130	11,257 12,021	19,551 1,888 1,914	15,129 14,33	5,013 4,603
48,130	11,257 12,021 16,488	19,551 1,888 1,914	15,129 14,33 13,551	5,013 4,603
48,130	11,257 12,021 16,488 0	19,551 1,888 1,914	15,129 14,33 13,551 0	5,013 4,603
48,130	11,257 12,021 16,488 0 (10)	19,551 1,888 1,914	15,129 14,33 13,551 0 239	5,013 4,603
48,130	11,257 12,021 16,488 0	19,551 1,888 1,914	15,129 14,33 13,551 0	5,013 4,603
48,130	11,257 12,021 16,488 0 (10)	19,551 1,888 1,914	15,129 14,33 13,551 0 239	5,013 4,603
	11,257 12,021 16,488 0 (10)	19,551 1,888 1,914	15,129 14,33 13,551 0 239	5,013 4,603 3
	11,257 12,021 16,488 0 (10) (15,326)	19,551 1,888 1,914	15,129 14,33 13,551 0 239 (12,378)	5,013 4,603 3
	11,257 12,021 16,488 0 (10) (15,326) 5,326)	19,551 1,888 1,914	15,129 14,33 13,551 0 239 (12,378)	5,013 4,603 3
	11,257 12,021 16,488 0 (10) (15,326) 5,326)	19,551 1,888 1,914	15,129 14,33 13,551 0 239 (12,378) (12,378)	5,013 4,603 3
	11,257 12,021 16,488 0 (10) (15,326) 5,326)	19,551 1,888 1,914	15,129 14,33 13,551 0 239 (12,378) (12,378)	5,013 4,603 3
	11,257 12,021 16,488 0 (10) (15,326) 5,326) 0 0 (15,326	19,551 1,888 1,914	15,129 14,33 13,551 0 239 (12,378) (12,378) 0 0	5,013 4,603 3 0
	11,257 12,021 16,488 0 (10) (15,326) 5,326)	19,551 1,888 1,914	15,129 14,33 13,551 0 239 (12,378) (12,378)	5,013 4,603 3 0