

ILLINOIS SUPERCONDUCTOR CORPORATION

Form S-3

June 06, 2001

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As filed with the Securities and Exchange Commission on June 6, 2001

Registration No. 333-_____

**SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM S-3

**REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ILLINOIS SUPERCONDUCTOR CORPORATION
(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

36-3688459
(I.R.S. Employer
Identification Number)

**451 Kingston Court
Mt. Prospect, Illinois 60056
(847) 391-9400**

(Address, Including Zip Code, and Telephone Number, Including
Area Code, of Registrant's Principal Executive Offices)

**Dr. George Calhoun
Chief Executive Officer
Illinois Superconductor Corporation
451 Kingston Court
Mt. Prospect, Illinois 60056
(847) 391-9400**

(Name, Address, Including Zip Code, and Telephone Number,
Including Area Code, of Agent For Service)

COPIES TO:

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(215) 981-4000

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. []

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. [X]

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [] _____

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [] _____

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. []

CALCULATION OF REGISTRATION FEE

| Title of Shares To Be Registered | Amount To Be Registered(1) | Proposed Maximum Aggregate Price Per Unit(2) | Proposed Maximum Aggregate Offering Price | Amount Of Registration Fee |
|--|-------------------------------|--|---|----------------------------------|
| Common Stock, \$0.001 par value, including preferred stock purchase rights | 2,500,000 | \$ 1.72 | \$4,300,000 | \$1,075 |

(1) Includes an indeterminate number of shares of Illinois Superconductor Corporation common stock that may be issuable by reason of stock splits, stock dividends or similar transactions.

(2) The amount is based on the average of the bid and asked price of Illinois Superconductor's common stock on the Over The Counter Bulletin Board on May 31, 2001 and is used solely for the purpose of calculating the registration fee

pursuant to
Rule 457(c)
under the
Securities Act of
1933, as
amended.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

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THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO THE REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

Subject to Completion, dated June 6, 2001

PROSPECTUS

2,500,000 SHARES

**ILLINOIS
SUPERCONDUCTOR**

CORPORATION

Common Stock

This prospectus relates to the offer and sale from time to time of up to 2,500,000 shares of our common stock, including preferred stock purchase rights, by the selling stockholders listed on page 11. We issued the shares pursuant to a transaction agreement dated as of November 1, 2000 by and among us, Illinois Superconductor Canada Corporation, a Canadian corporation and wholly-owned subsidiary of us and Lockheed Martin Canada, Inc. We will not receive any proceeds from the sale of the shares by the selling stockholders.

The selling stockholders, or its pledgees, donees, transferees or other successors-in-interest, may offer the common stock through public or private transactions, at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

Our common stock is listed on the Over The Counter Bulletin Board under the symbol ISCO.OB. On June 5, 2001, the reported last sale price of our common stock on the Over The Counter Bulletin Board was \$1.73 per share.

Our principal offices are located at 451 Kingston Court, Mt. Prospect, Illinois 60056, our telephone number is (847) 391-9400.

INVESTING IN OUR COMMON STOCK INVOLVES RISKS. YOU SHOULD CAREFULLY CONSIDER THE RISK FACTORS BEGINNING ON PAGE 2 OF THIS PROSPECTUS BEFORE YOU DECIDE TO INVEST.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is June 6, 2001

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You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. The selling stockholders are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of common stock.

Until _____, 2001, all dealers that buy, sell or trade the common stock, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

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ADDITIONAL INFORMATION

This prospectus is part of a registration statement we have filed with the Securities and Exchange Commission. This prospectus does not contain all of the information contained in the registration statement or the exhibits to the registration statement. For further information about us, please see the complete registration statement. Summaries of agreements or other documents in this prospectus are not necessarily complete. Please refer to the exhibits to the registration statement for complete copies of these documents.

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended and file reports, proxy statements and other information with the SEC. You may read and copy such reports, proxy statements and other information, including the registration statements and all of their exhibits, at the following SEC public reference rooms:

450 Fifth Street, N.W.
Judiciary Plaza
Room 1024
Washington, D.C. 20549

Seven World Trade Center
Suite 1300
New York, NY 10048

Citicorp Center
500 West Madison Street
Suite 1400
Chicago, IL 60661

You may obtain information on the operation of the SEC public reference room in Washington, D.C. by calling the SEC at 1-800-SEC-0330. Our SEC filings, including the registration statement of which this prospectus forms a part and the documents incorporated by reference that are listed below, are also available from the SEC's Web site at <http://www.sec.gov>, which contains reports, proxy and information statements and other information regarding issuers that file electronically.

The SEC allows us to incorporate by reference into this prospectus certain information that we file with it. This means that we can disclose important information to you by referring you to another document that we filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for any information superseded by information in this prospectus. You should read the information incorporated by reference because it is an important part of this prospectus.

We incorporate by reference the following documents that we previously filed with the SEC pursuant to the Exchange Act and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act:

1. Our Annual Report on Form 10-K/A for our fiscal year ended December 31, 2000.
2. Our Quarterly Report on Form 10-Q for our quarter ended March 31, 2001.
3. Our definitive Proxy Materials filed May 22, 2001.

4. Our Current Reports on Form 8-K filed on January 4, 2001, January 8, 2001, February 22, 2001, March 20, 2001, March 22, 2001, April 6, 2001, May 3, 2001 and May 30, 2001.

5. The description of our common stock contained in our Registration Statement on Form 8-A, as amended, and any other amendments or reports for the purpose of updating that description.

The documents incorporated by reference in this prospectus that are not delivered with this prospectus may be obtained from us without charge. You may obtain these documents incorporated by reference in this prospectus by telephoning us at (847) 391-9400 or writing us at: Corporate Secretary, Illinois Superconductor Corporation, 451 Kingston Court, Mt. Prospect, Illinois 60056.

Our Web site is located at <http://www.iscointl.com>. Information contained in our Web site is not a part of this prospectus.

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RISK FACTORS

You should carefully consider the risks described below before making an investment decision. The risks described below are not the only ones facing our company. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations.

Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment.

This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this prospectus.

Risks Related to Our Operations

We have a limited operating history and expect to encounter difficulties and net losses in the early stages of product commercialization.

We were founded in October 1989 and through 1996 were engaged principally in research and development, product testing, manufacturing, marketing and sales activities. We have incurred net losses since our inception. As of March 31, 2001, our accumulated deficit was approximately \$106 million. We have only recently begun to generate revenues from the sale of our radio frequency, or RF, filter products. Prior to the commencement of these sales, the majority of our revenues were derived from research and development contracts, primarily from the U.S. government. We do not expect revenues to increase dramatically until we ship a significantly larger amount of our RF products. Accordingly, we expect to continue to experience net losses, and we cannot be certain if or when we will become profitable. In addition, we may incur non-cash compensation charges related to our stock option repricing which may further decrease our earnings in the future. Spectral Solutions and the Adaptive Notch Filtering business unit of Lockheed Martin Canada, both of which we recently acquired, have similar operating histories and financial uncertainties.

We have only a limited operating history upon which an evaluation of us and our prospects can be based. We must therefore be considered in light of the risks, expenses and difficulties frequently encountered by companies in their early stages of product commercialization.

We expect our operations, in the foreseeable future, to continue to produce a negative cash flow; consequently, if we cannot raise additional capital, we may not be able to fund our continued operations.

To date, we have financed our operations primarily through public and private equity and debt financings. We believe that we have sufficient funds to operate our business without the need for substantial future capital sources other than those described herein beyond the end of the current fiscal year. In addition, we believe we have put in place mechanisms to raise additional capital when and if needed. We intend to augment our existing capital position through these funding mechanisms and through other strategic sources of capital. Although we believe we have sufficient capital resources available to meet our obligations over the next fiscal year, there is no guarantee that the funding mechanisms identified will allow to us to access necessary additional funds.

The actual amount of our future funding requirements will depend on many factors, including:

- the amount and timing of future revenues;
- the level of product marketing and sales efforts to support our commercialization plans;
- the magnitude of our research and product development programs;
- our ability to improve product margins;
- the cost of additional plant and equipment for manufacturing; and
- the costs involved in protecting our patents or other intellectual property.

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We must develop and expand our manufacturing and sales and marketing capabilities in order to sustain or grow our business.

For us to be financially successful, we must either manufacture our products in substantial quantities, at acceptable costs and on a timely basis, or enter into an outsourcing arrangement with a qualified manufacturer that will provide us the same. In the event that we are unable to enter into a manufacturing arrangement on acceptable terms with a qualified manufacturer, we would have to produce our products in commercial quantities in our own facilities. Although we have produced limited quantities of our products for commercial installations and for use in development and customer field trial programs, we face a number of technological and engineering challenges in producing large quantities of our products at competitive costs. We may not be able to manufacture such products in sufficient volume. We have limited experience in manufacturing, and substantial costs and expenses may be incurred in connection with attempts to manufacture larger quantities of our products. In addition, we may not be able to make the transition to large-scale commercial production successfully.

Our sales and marketing experience is very limited. We will be required to further develop our marketing and sales force in order to effectively demonstrate the advantages of our products over more traditional products, as well as other competitors' high temperature superconductor, or HTS, products. We also may elect to enter into arrangements with third parties regarding the commercialization and marketing of our products. If we enter into such arrangements, we will be substantially dependent upon the efforts of others in deriving commercial benefits from our products. We may not be able to establish adequate sales and distribution capabilities, we may not be able to enter into marketing arrangements or relationships with third parties on financially acceptable terms and any such third party may not be successful in marketing our products. There is no guarantee that our sales and marketing experience will be successful.

Failure to manage our growth may seriously harm our ability to deliver products in a timely manner, fulfill existing customer commitments and attract and retain new customers.

Our growth has caused, and we expect will continue to cause, a significant strain on our management, operational, financial and other resources. Our ability to manage growth effectively will require us to implement and improve our operational, financial, manufacturing and management information systems and expand, train, manage and motivate our employees. These demands may require us to add new management personnel and/or to cause our management to develop additional expertise. Any increase in resources devoted to product development and marketing and sales efforts could have an adverse effect on our financial performance in the next several fiscal quarters. The failure of our management team to effectively manage growth could have a material adverse effect on our business, operating results and financial condition.

Risks Related To Our Common Stock and Charter Provisions

Our common stock was de-listed from the NASDAQ National Market in June 1999 which may make it more difficult for you to sell your shares and may cause the market price of our common stock to decrease.

Our common stock was de-listed from trading on the NASDAQ National Market in June 1999 due to our inability, at that time, to meet the net tangible assets requirement for continued listing. Our common stock is now traded in the over-the-counter market and quoted on the over-the-counter bulletin board. There is no guarantee that the Bulletin Board will provide the same liquidity for the trading of securities as the NASDAQ National Market in the future. We intend to apply for relisting on the NASDAQ National Market when we are reasonably confident that our application would be approved. However, there is no guarantee that our application for relisting will be approved.

Our stock price may be volatile and your investment in our common stock could suffer a decline in value.

The market price of our common stock, like that of many other high-technology companies, has fluctuated significantly and is likely to continue to fluctuate in the future. Since January 1, 1999 and through March 31, 2001, the closing price of our common stock has ranged from a low of \$0.3438 per share to a high of \$39.00 per share. Announcements by us or others regarding the receipt of customer orders, quarterly variations in operating

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results, acquisitions or divestitures, additional equity or debt financings, results of customer field trials, scientific discoveries, technological innovations, litigation, product developments, patent or proprietary rights, government regulation and general market conditions may have a significant impact on the market price of our common stock. In addition, fluctuations in the price of our common stock could affect our ability to have our common stock accepted for listing on a securities market or exchange.

Exercise of outstanding options and sales by us of additional shares pursuant to other effective registration statements will dilute existing stockholders and could decrease the market price of our common stock.

As of March 31, 2001, we had outstanding options to purchase 7,037,796 shares of our common stock at a weighted average exercise price of \$1.8381 per share (5,260,257 of which have not yet vested) issued to employees, directors and consultants pursuant to our 1993 Stock Option Plan, the merger agreement with Spectral Solutions, and individual agreements with our management and directors. In order to attract and retain key personnel, we may issue additional securities, including stock options, in connection with our employee benefit plans, or may lower the price of existing stock options.

On January 8, 2001, we filed a registration statement on Form S-3 for the sale of up to \$20 million shares of our common stock in a rights offering to common stockholders as of a certain holding date not yet determined. On January 12, 2001, we filed a registration statement on Form S-3 for the sale of up to \$50 million shares of our common stock in a universal shelf offering. During March 2001, we entered into an agreement with Paul Revere Capital Partners, Ltd., whereby Paul Revere Capital commits to acquire up to \$20 million in shares of our common stock over the next 24 months upon demand by us, subject to the conditions contained in the agreement. Pursuant to this facility, we may, at our discretion, sell shares of our common stock to Paul Revere Capital Partners at 94% of the average weighted volume price over a 22 day measurement period. Each draw down is limited to the lesser of \$4 million or 20% of the trading volume over a specified period of time. We will also issue a warrant to Paul Revere Capital Partners to purchase a number of shares equal to 0.5% of the shares issued in each draw down. We have also agreed to pay a placement agent a fee equal to 4% of each draw down and issue a warrant to the placement agent to purchase a number of shares equal to 0.5% of the shares issued in each draw down.

The exercise of options and warrants for common stock and the issuance of additional shares of our common stock and/or rights to purchase common stock at prices below market value will be dilutive to existing stockholders and may have an adverse effect on the market price of our common stock.

The concentration of ownership of our stock could limit the ability of stockholders to influence the outcome of director elections and other transactions submitted for a vote of our stockholders.

Our officers and directors and their affiliates together control approximately 38% of our outstanding voting power. Consequently, these stockholders, if they act together, would be able to exert significant influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. In addition, this concentration of ownership may delay or prevent a change of control of our company, even when a change may be in the best interests of our stockholders. The interests of these stockholders may not always coincide with our interests as a company or the interests of other stockholders. Accordingly, these stockholders could cause us to enter into transactions or agreements that we would not otherwise consider.

We have in place several anti-takeover measures that could discourage or prevent a takeover, even if an acquisition would be beneficial to our stockholders.

We have certain arrangements which may be deemed to have a potential anti-takeover effect in that such provisions may delay, defer or prevent a change of control of our company. In February 1996, our Board of Directors adopted a stockholders rights plan. In addition, our Certificate of Incorporation and By-Laws provide that (i) stockholder action may be taken only at stockholders meetings; (ii) the Board of Directors has authority to issue series of our preferred stock with such voting rights and other powers as the Board of Directors may determine; (iii) prior specified notice must be given by a stockholder making nominations to the Board of Directors or raising business matters at stockholders meetings; and (iv) the Board of Directors is divided into three classes, each serving for staggered three-year terms. The effect of the rights plan and the anti-takeover provisions in our charter

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documents may be to deter business combination transactions not approved by our Board of Directors, including acquisitions that may offer a premium over market price to some or all of our stockholders.

Technology and Market Risks

We are dependent on the build-out of 3G networks and the capital spending patterns of wireless network operators.

Increased sales of our products is dependent on the build-out of third generation, or 3G, enabled wireless communications networks. Building these networks is capital intensive, as is the process of upgrading existing second generation equipment. Further, the capital spending patterns of wireless network operators is beyond our control and depends on a variety of factors, including access to financing, the status of federal, local and foreign government regulation and deregulation, changing standards for wireless technology, the overall demand for wireless services, competitive pressures and general economic conditions. The build-out of 3G enabled networks may take years to complete and is dependent upon the level of capital spending by wireless network operators. The magnitude and timing of capital spending by these operators for constructing, rebuilding or upgrading their systems significantly impacts the demand for our products. Any decrease or delay in capital spending patterns in the wireless communication industry, whether because of a general business slowdown or a reevaluation of the prospective demand for 3G services, would delay the build-out of 3G networks and significantly harm our business prospects.

Our success depends on the market's acceptance of our HTS telecommunications products.

Our radio frequency filter products, which are based on our HTS technology, and our Adaptive Notch Filtering, or ANF, technology, have not been sold in very large quantities and a sufficient market may not develop for our products. Our customers establish demanding specifications for performance and reliability, and although we believe we have met or exceeded these specifications to date, there is no guarantee that the wireless service providers will elect to use our HTS or ANF solutions to solve their interference problems.

Rapid technological change and future competitive technologies could negatively affect our operations.

The field of superconductivity is characterized by rapidly advancing technology. Our success will depend in large part upon our ability to keep pace with advancing superconducting technology, high performance RF filter design and efficient, low cost cryogenic technologies. Rapid changes have occurred, and are likely to continue to occur, in the development of superconducting materials and processes. Our development efforts may be rendered obsolete by the adoption of alternative solutions to current wireless operator problems or by technological advances made by others. In addition, other materials or processes, including other superconducting materials or fabrication processes, may prove more advantageous for the commercialization of high performance wireless products than the materials and processes selected by us.

We are dependent on the wireless telecommunications and 3G markets.

Our principal target market for our products is wireless telecommunications. The devotion of substantial resources to the wireless telecommunications market makes us vulnerable to adverse changes in this market. Adverse developments in the wireless telecommunications market, which could come from a variety of sources, including future competition, new technologies or regulatory decisions, could affect the competitive position of wireless systems. Any adverse developments in the wireless telecommunications market during the foreseeable future would have a material adverse effect on our business, operating results and financial condition.

Our principal focus within the wireless telecommunications market has been on the emerging 3G wireless systems in Asia. The devotion of substantial resources to this emerging market makes us vulnerable to adverse developments in this market, including the potential decisions by 3G wireless operators to not adopt HTS Radio Frequency filters into their system specifications or on a retrofit schedule, to delay in the roll-out of 3G systems, to future competition, new technologies or regulatory decisions, all of which could have an adverse effect on our business, operating results and financial condition.

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Business Risks

Our customers are concentrated and the loss of one of our largest customers could cause our revenues to drop quickly and unexpectedly.

To date, our sales and marketing efforts have focused on cellular and PCS service providers in retrofit applications. Sales to three of our customers accounted for over 80% and 65% of our total revenues for 2000 and 1999, respectively. In addition, we have focused a significant amount of our technical and managerial resources to working with the limited number of 3G license holders in Japan and Korea, as well as, established original equipment manufacturers, or OEMs, who may provide telecommunications equipment to these 3G wireless operators in these markets.

We expect that if our RF filter products achieve market acceptance, a limited number of wireless service providers and OEMs will account for a substantial portion of our revenue during any period. Sales of many of our RF filter products depend in significant part upon the decision of prospective customers and current customers to adopt and expand their use of our products. Wireless service providers, wireless equipment OEMs and our other customers are significantly larger than, and are able to exert a high degree of influence over, us. Customers' orders are affected by a variety of factors such as new product introductions, regulatory approvals, end user demand for wireless services, customer budgeting cycles, inventory levels, customer integration requirements, competitive conditions and general economic conditions. The failure to attract new customers would have a material adverse effect on our business, operating results and financial condition.

The lengthy and variable sales cycles of our products could cause significant fluctuation in our results.

Prior to selling products to our customers, we must generally undergo lengthy approval and purchase processes. Technical and business evaluation by potential customers can take up to a year or more for products based on new technologies such as HTS. The length of the approval process is affected by a number of factors, including, among others, the complexity of the product involved, priorities of the customers, budgets and regulatory issues affecting customers. We may not obtain the necessary approvals or ensuing sales of such products may not occur. The length of our customers' approval process or delays could have a material adverse effect on our business, operating results and financial condition.

Our ability to deliver our products is dependent on a limited number of suppliers.

Certain parts and components used in our RF filter products, including substrates, vacuum components, and cryogenic coolers, are only available from a limited number of sources. Our reliance on these limited source suppliers exposes us to certain risks and uncertainties, including the possibility of a shortage or discontinuation of certain key components and reduced control over delivery schedules, manufacturing capabilities, quality and costs. Any reduced availability of such parts or components when required could materially impair our ability to manufacture and deliver our products on a timely basis and result in the cancellation of orders, which could have a material adverse effect on our business, operating results and financial condition.

In addition, the purchase of certain key components involves long lead times and, in the event of unanticipated increases in demand for our products, we may be unable to manufacture products in quantities sufficient to meet our customers' demand in any particular period. We have no guaranteed supply arrangements with our limited source suppliers, do not maintain an extensive inventory of parts or components, and customarily purchase parts and components pursuant to purchase orders placed from time to time in the ordinary course of business.

To satisfy customer requirements, we may be required to stock certain long lead time parts in anticipation of future orders. The failure of such orders to materialize as forecasted could limit resources available for other important purposes or accelerate our requirement for additional funds. In addition, such excess inventory could become obsolete, which would adversely affect our financial performance. Business disruption, production shortfalls or financial difficulties of a limited source supplier could materially and adversely affect us by increasing product costs or reducing or eliminating the availability of such parts or components. In such events, our inability to

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develop alternative sources of supply quickly and on a cost-effective basis could materially impair our ability to manufacture and deliver our products on a timely basis and could have a material adverse effect on our business, operating results and financial condition.

If we lose our key personnel, or fail to attract and retain additional personnel, the success and growth of our business may suffer.

Our success will depend in large part upon our ability to attract and retain highly qualified management, engineering, manufacturing, marketing, sales and Research and Development personnel. Due to the specialized nature of our business, it may be difficult to locate and hire qualified personnel. The loss of services of one of our executive officers or other key personnel, or the failure to attract and retain other executive officers or key personnel, could have a material adverse effect on our business, operating results and financial condition.

Failure of our products to perform properly might subject us to significant warranty expenses.

To date, our products have been installed in more than 400 cell sites with a wide geographic dispersion. Although we believe our products have not experienced any significant reliability problems to date, our products may develop reliability problems in the future. Repeated or widespread quality problems could result in significant warranty expenses and/or the loss of customer confidence. The occurrence of such quality problems could have a material adverse effect on our business, operating results and financial condition.

Intense competition, and increasing consolidation in our industry, could create stronger competitors and harm our business.

The wireless telecommunications equipment market is very competitive. Our products compete directly with products which embody existing and future competing commercial technologies. Many of these companies have substantially greater financial resources, larger research and development staffs and greater manufacturing and marketing capabilities than we do. Other emerging wireless technologies, including smart antennas and tower mounted amplifiers, may also provide protection from RF interference and offer enhanced range to wireless communication service providers at lower prices and/or superior performance, and may therefore compete with our products. High performance HTS RF filters may not become a preferred technology to address the needs of wireless communication service providers. Failure of our products to improve performance sufficiently, reliably, or at an acceptable price or to achieve commercial acceptance or otherwise compete with conventional and new technologies, will have a material adverse effect on the our business, operating results and financial condition.

Although the market for superconductive electronics currently is small, we believe it will become intensely competitive, especially if products with significant market potential are successfully developed. In addition, if the superconducting industry develops, additional competitors with significantly greater resources are likely to enter the field. In order to compete successfully, we must continue to develop and maintain technologically advanced products,

reduce production costs, attract and retain highly qualified personnel, obtain additional patent or other protection for our technology and products and manufacture and market our products, either alone or with third parties. We may be unable to achieve these objectives. Failure to achieve these objectives would have a material adverse effect on our business, operating results and financial condition.

Legal Risks

Our limited ability to protect our intellectual property rights could impair our ability to compete effectively.

Our success will depend in part on our ability to obtain patent protection for our products and processes, to preserve our trade secrets to prevent other from infringing on our patents or property rights and to operate without infringing upon the patent or other proprietary rights of others and without breaching or otherwise losing rights in the technology licenses upon which any of our products are based. As of March 31, 2001, we had been issued 37 U.S. and four foreign patents, had filed and were actively pursuing applications for another 22 U.S. and 29 foreign patents, and were the licensee of seven U.S. patents held by others. One of our patents is jointly owned with Lucent Technologies, Inc. We believe that, since the discovery of HTS materials in 1986, a large number of patent applications have been filed worldwide, and many patents have been granted in the U.S. relating to HTS materials.

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The claims in those patents often appear to overlap and there have been interference proceedings pending in the United States Patent and Trademark Office (not currently involving us) regarding rights to inventions claimed in some of the HTS materials patent applications. We also believe there are a large number of patents and patent applications covering RF filter products and other products and technologies that we are pursuing. Accordingly, the patent positions of companies using HTS materials technologies and RF technologies, including us, are uncertain and involve complex legal and factual questions. The patent applications filed by us or by our licensors may not result in issued patents or the scope and breadth of any claims allowed in any patents issued to us or our licensors may not exclude competitors or provide competitive advantages to us. In addition, patents issued to us, our subsidiaries or our licensors may not be held valid if subsequently challenged or others may claim rights in the patents and other proprietary technologies owned or licensed by us. Others may have developed or may in the future develop similar products or technologies without violating any of our proprietary rights. Furthermore, our loss of any license to technology that we now have or acquire in the future may have a material adverse effect on our business, operating results and financial condition.

Some of the patents and patent applications owned or licensed by us are subject to non-exclusive, royalty-free licenses held by various U.S. governmental units. These licenses permit these U.S. government units to select vendors other than us to produce products for the U.S. government, which would otherwise infringe our patent rights that are subject to the royalty-free licenses. In addition, the U.S. government has the right to require us to grant licenses (including exclusive licenses) under such patents and patent applications or other inventions to third parties in certain instances.

Older patent applications in the U.S. are currently maintained in secrecy until patents are issued. In foreign countries and for newer U.S. patent applications, this secrecy is maintained for a period of time after filing. Accordingly, publication of discoveries in the scientific literature or of patents themselves or laying open of patent applications in foreign countries or for newer U.S. patent applications tends to lag behind actual discoveries and filing of related patent applications. Due to this factor and the large number of patents and patent applications related to HTS materials, RF technologies and other products and technologies that we are pursuing, comprehensive patent searches and analyses associated with HTS materials, RF technologies and other products and technologies that we are

pursuing are often impractical or not cost-effective. As a result, our patent and literature searches cannot fully evaluate the patentability of the claims in our patent applications or whether materials or processes used by us for our planned products infringe or will infringe upon existing technologies described in U.S. patents or may infringe upon claims in patent applications made available in the future. Because of the volume of patents issued and patent applications filed relating to HTS materials, RF technologies and other products and technologies that we are pursuing, we believe there is a significant risk that current and potential competitors and other third parties have filed or will file patent applications for, or have obtained or will obtain, patents or other proprietary rights relating to materials, products or processes used or proposed to be used by us. In any such case, to avoid infringement, we would have to either license such technologies or design around any such patents. We may be unable to obtain licenses to such technologies or, if obtainable, such licenses may not be available on terms acceptable to us or we may be unable to successfully design around these third party patents.

Participation in litigation or patent office proceedings in the U.S. or other countries, which could result in substantial cost to and diversion of effort by us, may be necessary to enforce patents issued or licensed to us, to defend us against infringement claims made by others or to determine the ownership, scope or validity of the proprietary rights of our company and others. The parties to such litigation may be larger, better capitalized than us and better able to support the cost of litigation. An adverse outcome in any such proceedings could subject us to significant liabilities to third parties, require us to seek licenses from third parties and/or require us to cease using certain technologies, any of which could have a material adverse effect on our business, operating results and financial condition.

We believe that a number of patent applications, including applications filed by International Business Machines Corporation, Lucent Technologies, Inc., and other potential competitors of us are pending that may cover the useful compositions and uses of certain HTS materials including yttrium barium copper oxide, the principal HTS material used by us in our present and currently proposed products. Therefore, there is a substantial risk that one or more third parties may be granted patents covering yttrium barium copper oxide and other HTS materials and their uses, in which case we could not use these materials without an appropriate license. As with other patents, we have no assurance that we will be able to obtain licenses to any such patents for yttrium barium copper oxide or other

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HTS materials, processes for manufacturing those materials, or their uses or that such licenses would be available on commercially reasonable terms. Any of these problems would have a material adverse effect on our business, operating results and financial condition.

We are subject to various lawsuits, and may be subject to future litigation, that could harm our business.

We have been subject to a number of lawsuits and currently have a number of legal proceedings against us involving various claims. Although we have been successful in defending ourselves against these claims to date, there is no guarantee that this success will continue. If we are not successful in defending ourselves against these claims, there may be a material and adverse effect on our business, operating results and financial condition.

Government regulation could adversely affect our business.

Although we believe that our wireless telecommunications products themselves would not be subject to licensing by, or approval requirements of, the Federal Communications Commission, the operation of base stations is subject to FCC licensing and the radio equipment into which our products would be incorporated is subject to FCC approval. Base stations and the equipment marketed for use therein must meet specified technical standards. Our ability to sell

our wireless telecommunications products is dependent on the ability of wireless base station equipment manufacturers and wireless base station operators to obtain and retain the necessary FCC approvals and licenses. In order for them to be acceptable to base station equipment manufacturers and to base station operators, the characteristics, quality and reliability of our base station products must enable them to meet FCC technical standards. We may be subject to similar regulations of the Canadian federal and provincial governments. Any failure to meet such standards or delays by base station equipment manufacturers and wireless base station operators in obtaining the necessary approvals or licenses could have a material adverse effect on our business, operating results and financial condition. In addition, HTS RF filters are on the U.S. Department of Commerce's export regulation list. Therefore, exportation of such RF filters to certain countries may be restricted or subject to export licenses.

We are subject to governmental labor, safety and discrimination laws and regulations with substantial penalties for violations. In addition, employees and others may bring suit against us for perceived violations of such laws and regulations. Defense against such complaints could result in significant legal costs for us. Although we endeavor to comply with all applicable laws and regulations, we may be the subject of complaints in the future, which could have a material adverse effect on our business, operating results and financial condition.

We are subject to state and federal environmental regulations for treatment of hazardous waste.

We use certain hazardous materials in our research, development and manufacturing operations. As a result, we are subject to stringent federal, state and local regulations governing the storage, use and disposal of such materials. It is possible that current or future laws and regulations could require us to make substantial expenditures for preventive or remedial action, reduction of chemical exposure, or waste treatment or disposal. We believe we are in material compliance with all environmental regulations and to date we have not had to incur significant expenditures for preventive or remedial action with respect to the use of hazardous materials. However, our operations, business or assets could be materially and adversely affected by the interpretation and enforcement of current or future environmental laws and regulations. In addition, although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by state and federal regulations, there is the risk of accidental contamination or injury from these materials. In the event of an accident, we could be held liable for any damages that result. Furthermore, the use and disposal of hazardous materials involves the risk that we could incur substantial expenditures for such preventive or remedial actions. The liability in the event of an accident or the costs of such actions could exceed our resources or otherwise have a material adverse effect on our business, results of operations and financial condition. We carry property and workman's compensation insurances in full force and effect through nationally known carriers which include pollution cleanup or removal and medical claims for industrial incidents.

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Risks Related To Acquisitions and Business Expansion

Our success depends on our ability to successfully integrate the operations of our recent acquisitions.

We acquired Spectral Solutions in August 2000 and the adaptive notch filtering business unit of Lockheed Martin Canada in December 2000. There are certain risks associated with these acquisitions, including the risk that we will not be able to successfully integrate the Adaptive Notch Filtering business and Spectral Solutions business into our existing business. Spectral Solutions develops and manufactures primarily thin-film HTS RF applications for the wireless communications industry. We have concentrated our manufacturing and marketing efforts to date on thick-film applications, and there can be no assurance that we will successfully integrate thin-film technology into our product offerings. There is also no assurance that we will be able to achieve the synergies we believe should result

from the acquisition of either of these companies.

There are risks associated with future potential acquisitions.

In the future, we may pursue acquisitions to obtain products, services and technologies that we believe will complement or enhance our current product or services offerings. At present, we have no agreements or other arrangements with respect to any acquisition. An acquisition may not produce the revenue, earnings or business synergies that we anticipated and may cause us to assume significant unforeseen liabilities, and an acquired product, service or technology might not perform as we expected. If we pursue any acquisition, our management could spend a significant amount of time and effort in identifying and completing the acquisition and may be distracted from the operations of our business. If we complete an acquisition, we would probably have to devote a significant amount of management resources to integrating the acquired business with our existing business, and that integration may not be successful.

The development of international operations will cause us to face additional risks.

We are in discussions with several companies in non-U.S. markets, in particular in Japan and other parts of Asia, to form manufacturing, product development joint ventures and other marketing or consulting arrangements. Results of these discussions include a joint marketing agreement with CTR Ventures in Japan, the opening of a Japanese office in Tokyo, a joint product development and manufacturing arrangement with KMW, Inc. in Korea and the acquisition of the ANF division from Lockheed Martin Canada.

We believe that non-U.S. markets could provide a substantial source of revenue in the future. However, there are certain risks applicable to doing business in foreign markets that are not applicable to companies doing business solely in the U.S. For example, we will be subject to risks related to fluctuations in the exchange rate between the U.S. dollar and foreign currencies in countries in which we do business. In addition, we will be subject to the additional laws and regulations of these foreign jurisdictions, some of which might be substantially more restrictive than similar U.S. ones. Foreign jurisdictions may also provide less patent protection than is available in the U.S., and we may be less able to protect our intellectual property from misappropriation and infringement in these foreign markets.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Because we want to provide you with more meaningful and useful information, this prospectus contains, and incorporates by reference, certain forward-looking statements that reflect our current expectations regarding our future results of operations, performance and achievements. We have tried, wherever possible, to identify these forward-looking statements by using words such as anticipates, believes, estimates, expects, plans, intends and expressions. These statements reflect our current beliefs and are based on information currently available to us. Accordingly, these statements are subject to certain risks, uncertainties and contingencies, including the factors set forth under the caption Risk Factors, which could cause our actual results, performance or achievements for 2001 and beyond to differ materially from those expressed in, or implied by, any of these statements. You should not place undue reliance on any forward-looking statements. Except as otherwise required by federal securities laws, we undertake no obligation to release publicly the results of any revisions to any such forward-looking statements that may be made to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

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WHO WE ARE

We provide a wide array of interference-management solutions for the wireless telecommunications industry. We use both our patented and proprietary adaptive notch filter technology and our patented and proprietary high temperature superconductor technology to monitor and suppress in-band and out-of-band interference in a wireless base station. We believe we are the only company in the world that has proprietary products to address the wireless operator's need to reduce or eliminate interference that comes from in-band and out-of-band sources.

We were founded in 1989 by ARCH Development Corporation, an affiliate of the University of Chicago, to commercialize superconductor technologies initially developed by Argonne National Laboratory. We were incorporated in Illinois on October 18, 1989 and reincorporated in Delaware on September 24, 1993. Our facilities and principal executive offices are located at 451 Kingston Court, Mt. Prospect, Illinois 60056 and our telephone number is (847) 391-9400.

We applied for the right to do business as ISCO International and are presenting a proposal to our stockholders at our annual meeting on June 22, 2001 to change our name to ISCO International, Inc.

USE OF PROCEEDS

We will not receive any proceeds from the sale by the selling stockholders of our common stock. The selling stockholders will receive all of the net proceeds from the sale of their shares.

SELLING STOCKHOLDERS

We issued 2,500,000 shares of common stock to Lockheed Martin Canada pursuant to a transaction agreement dated as of November 1, 2000 by and among us, Illinois Superconductor Canada Corporation, a Canadian corporation and direct wholly-owned subsidiary of us and Lockheed Martin Canada, Inc., a Canadian corporation. Mr. Spoor, a director of our company, is the President of Lockheed Martin Canada. Mr. Spoor was appointed to our board of directors in December 2000 following the closing of the transaction. On June 1, 2001, Lockheed Martin Canada transferred 225,000 shares of common stock to Venture First Associates of Melbourne, Inc. in connection with its services rendered pursuant to the transaction.

The shares listed under the column "Number of Shares Being Offered" in the table below represent the number of shares that may be sold by the selling stockholders pursuant to this prospectus. Pursuant to Rule 416 under the Securities Act of 1933, the registration statement of which this prospectus is a part also covers any additional shares of our common stock which becomes issuable in connection with such shares because of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of outstanding shares of our common stock.

We do not know when or in what amounts the selling stockholders may offer shares for sale. The selling stockholders may not sell all or any of the shares offered by this prospectus. Because the selling stockholders may offer all or some of the shares pursuant to this offering, we cannot estimate the number of the shares that will be held by the selling stockholders after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by each selling stockholder.

The following table sets forth, to our knowledge, certain information regarding the beneficial ownership of the shares of common stock by the selling stockholders as of May 14, 2001. Beneficial ownership is calculated based upon SEC requirements and is not necessarily indicative of beneficial ownership for any other purpose. Unless otherwise indicated below, the selling stockholders named in this table have sole voting and investment power with respect to all shares beneficially owned. The presentation is based on 107,751,614 shares of our common stock outstanding as of May 14, 2001:

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| Name of Selling Stockholder(1) | Shares Beneficially Owned Prior to Offering | | Number of Shares Being Offered | Shares Beneficially Owned After Offering | |
|--|---|------------|--------------------------------|--|---------|
| | Number | Percentage | | Number | Percent |
| Lockheed Martin Canada, Inc.(2) 3001 Solandt Road Kanata, Ontario Canada K2K 2M8 | 2,281,666 | 2.1% | 2,275,000 | 6,666 | * |
| Venture First Associates of Melbourne, Inc. 1901 S. Harbor City Boulevard Suite 501 Melbourne, Florida 32901 | 225,000 | * | 225,000 | | |

* Less than 1%

(1) Includes donees and pledgees selling shares that are received from the selling stockholder.

(2) Includes outstanding options to purchase 6,666 shares of common stock, which were exercisable as of May 14, 2001, or within 60 days from such date. We have been advised that these options are held by Mr. Spoor, one of our directors, for the benefit of his employer, Lockheed Martin Canada, Inc.

We prepared this table based on the information supplied to us by the selling stockholders named in the table.

PLAN OF DISTRIBUTION

Pursuant to the transaction agreement dated as of November 1, 2000 and a registration rights agreement dated as of December 20, 2000 by and among us, Illinois Superconductor Canada Corporation and Lockheed Martin Canada, we agreed to register for public resale the shares of our common stock issued to Lockheed Martin Canada, or its pledgees, donees, transferees or other successors in interest. The registration statement of which this prospectus is a part has been filed with the SEC pursuant to the registration rights agreement. We have agreed to use our best efforts to keep this registration statement effective for a period of one year commencing on the effective date of the applicable registration statement or, if earlier, the date upon which all of the shares have been sold in accordance with the registration statement. The aggregate proceeds to the selling stockholders from the sale of shares offered pursuant to this prospectus will be the prices at which such securities are sold, less any commissions. The selling stockholders may choose to not sell any or all of the shares of our common stock offered pursuant to this prospectus.

The selling stockholders, or its pledgees, donees, transferees or other successors in interest, may, from time to time, sell all or a portion of the shares of our common stock at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to such market prices or at negotiated prices. The selling stockholders may offer its shares of our common stock at various times in one or more of the following transactions:

in the over-the-counter market;

on any national securities exchange or market, if any, on which our common stock may be listed at the time of sale;

through block trades in which the broker or dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

through purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this prospectus;

in ordinary brokerage transactions and transactions in which the broker solicits purchasers;

through options, swaps or derivatives;

in privately negotiated transactions;

in transactions to cover short sales;

through any other legally permissible method; and

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through a combination of any such methods of sale.

A selling stockholder may also sell its shares of our common stock in accordance with Rule 144 under the Securities Act, rather than pursuant to this prospectus.

A selling stockholder may sell its shares of our common stock directly to purchasers or may use brokers, dealers, underwriters or agents to sell such shares. In effecting sales, brokers and dealers engaged by a selling stockholder may arrange for other brokers or dealers to participate. Brokers or dealers may receive commissions, discounts or concessions from a selling stockholder or, if any such broker-dealer acts as agent for a purchaser of such shares, from a purchaser in amounts to be negotiated. Such compensation may, but is not expected to, exceed that which is customary for the types of transactions involved. Broker-dealers may agree with a selling stockholder to sell a specified number of such shares at a stipulated price per share, and, to the extent such broker-dealer is unable to do so acting as agent for a selling stockholder, to purchase as principal any unsold shares at the price required to fulfill the broker-dealer commitment to a selling stockholder. Broker-dealers who acquire shares as principal may thereafter resell such shares from time to time in transactions, which may involve block transactions and sales to and through other broker-dealers, including transactions of the nature described above, in the over-the-counter market or otherwise at prices and on terms then prevailing at the time of sale, at prices then related to the then-current market price or in negotiated transactions. In connection with such resales, broker-dealers may pay to or receive from the purchasers of such shares commissions as described above.

The selling stockholders and any broker-dealers or agents that participate with a selling stockholder in sales of its shares of our common stock may be deemed to be underwriters within the meaning of the Securities Act in connection

with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of such shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

From time to time the selling stockholders may engage in short sales, short sales against the box, puts and calls and other hedging transactions in our securities, and may sell and deliver its shares of our common stock in connection with such transactions or in settlement of securities loans. These transactions may be entered into with broker-dealers or other financial institutions. In addition, from time to time the selling stockholders may pledge its shares pursuant to the margin provisions of its customer agreements with its broker-dealer. Upon delivery of such shares or a default by a selling stockholder, the broker-dealer or financial institution may offer and sell such pledged shares from time to time.

We are required to pay all fees and expenses incident to the registration of the shares of our common stock, including fees and disbursements of counsel appointed by the selling stockholders. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act. We have advised the selling stockholders that during such time as it may be engaged in a distribution of the shares of our common stock, it is required to comply with the anti-manipulative provisions of Regulation M under the Securities Exchange Act.

LEGAL MATTERS

The validity of the shares of our common stock offered by this prospectus will be passed upon for us by Pepper Hamilton LLP, Philadelphia, Pennsylvania.

EXPERTS

Our annual financial statements incorporated into this prospectus by reference to our annual report on Form 10-K/A for the fiscal year ended December 31, 2000 have been audited in part by Grant Thornton LLP, independent public accountants, as indicated in their report with respect thereto, and by Ernst & Young LLP, independent public accountants, as indicated in their report with respect thereto and are included herein in reliance upon the authority of those firms as experts in accounting and auditing in giving said reports.

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INDEMNIFICATION

Article 9 of our Certificate of Incorporation provides that we shall indemnify our directors to the full extent permitted by the General Corporation Law of the State of Delaware and may indemnify our officers and employees to such extent, except that we shall not be obligated to indemnify any such person (1) with respect to proceedings, claims or actions initiated or brought voluntarily by any such person and not by way of defense, or (2) for any amounts paid in settlement of an action indemnified against by us without our prior written consent. We have entered into indemnity agreements with each of our directors and officers. These agreements may require us, among other things, to indemnify such directors and officers against certain liabilities that may arise by reason of their status or service as directors or officers, as the case may be, to advance expenses to them as they are incurred, provided that they undertake to repay the amount advanced if it is ultimately determined by a court that they are not entitled to

indemnification and to obtain directors and officers liability insurance if available on reasonable terms.

In addition, Article 8 of our Certificate of Incorporation provides that a director of ours shall not be personally liable to us or our stockholders for monetary damages for breach of his or her fiduciary duty as a director, except for liability (1) for any breach of the director's duty of loyalty to us or our stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for willful or negligent conduct in paying dividends or repurchasing stock out of other than lawfully available funds or (4) for any transaction from which the director derives an improper personal benefit.

We have obtained a directors and officers liability insurance policy which entitles us to be reimbursed for certain indemnity payments we are required or permitted to make to its directors and officers.

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Part II

Information Not Required In Prospectus

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the various expenses in connection with the sale and distribution of the securities being registered. All of the amounts shown are estimates except the Securities and Exchange Commission registration fee.

| | |
|---------------------------------|-----------------|
| SEC registration fee | \$1,075 |
| Legal fees and expenses | 10,000 |
| Accounting fees and expenses | 5,000 |
| Miscellaneous fees and expenses | 1,231 |
| <u>TOTAL</u> | <u>\$17,306</u> |

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law (Section 145) permits a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director, officer or agent of the corporation or another enterprise if serving at the request of the corporation. Depending on the character of the proceeding, a corporation may indemnify against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding if the person indemnified acted in good faith and, in respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. In the case of an action by or in the right of the corporation, no indemnification may be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine that, despite the adjudication of liability, such person is fairly and reasonably entitled to indemnity for such expenses which the court shall deem proper. Section 145 further provides

that to the extent a director, officer, employee or agent of a corporation has been successful in the defense of any action, suit or proceeding referred to above, or in the defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

Article 9 of our Certificate of Incorporation provides that we shall indemnify our directors to the full extent permitted by the General Corporation Law of the State of Delaware and may indemnify our officers and employees to such extent, except that we shall not be obligated to indemnify any such person (1) with respect to proceedings, claims or actions initiated or brought voluntarily by any such person and not by way of defense, or (2) for any amounts paid in settlement of an action indemnified against by us without our prior written consent. We have entered into indemnity agreements with each of our directors and officers. These agreements may require us, among other things, to indemnify such directors and officers against certain liabilities that may arise by reason of their status or service as directors or officers, as the case may be, to advance expenses to them as they are incurred, provided that they undertake to repay the amount advanced if it is ultimately determined by a court that they are not entitled to indemnification and to obtain directors' and officers' liability insurance if available on reasonable terms.

In addition, Article 8 of our Certificate of Incorporation provides that a director of us shall not be personally liable to us or our stockholders for monetary damages for breach of his or her fiduciary duty as a director, except for liability (1) for any breach of the director's duty of loyalty to us or our stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for willful or negligent conduct in paying dividends or repurchasing stock out of other than lawfully available funds or (4) for any transaction from which the director derives an improper personal benefit.

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We have obtained a directors' and officers' liability insurance policy which entitles us to be reimbursed for certain indemnity payments we are required or permitted to make to its directors and officers.

Item 16. List of Exhibits

The exhibits filed as part of this registration statement are as follows:

| Exhibit | Description |
|--|--|
| 2.1(1) | Transaction Agreement, dated November 1, 2000, by and among the Company, Illinois Superconductor Canada Corporation and Lockheed Martin Canada, Inc. |
| 5.1* Opinion of Pepper Hamilton LLP regarding legality of securities being registered ^{23.1*} Consent of Grant Thornton LLP ^{23.2*} | |

Consent of
Ernst &
Young
LLP^{23.3*}
Consent of
Pepper
Hamilton
LLP
(included in
its Opinion
filed as
Exhibit 5.1
hereto)^{24.1*}
Powers of
Attorney
(included
on
signature
page)

(1) Incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the SEC on January 4, 2001.

* Filed herewith.

Item 17. Undertakings

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (i) and (ii) above do not apply if the registration statement is on Form S-3 or Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Illinois Superconductor Corporation certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in Mt. Prospect, Illinois on May 31, 2001.

Illinois Superconductor Corporation

By: /s/ George M. Calhoun

George M. Calhoun
Chairman and Chief Executive Officer

POWER OF ATTORNEY

Pursuant to the requirements of the Securities Exchange Act of 1933, as amended, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated. Each person whose signature appears below in so signing also makes, constitutes and appoints George M. Calhoun and Charles F. Willes, as his true and lawful attorneys-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to execute and cause to be filed with the Securities and Exchange Commission any and all amendments and post-effective amendments to this Registration Statement and a related registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, and in each case to file the same, with all exhibits thereto and other documents in connection therewith, and hereby ratifies and confirms all that said attorney-in-fact or his substitute or substitutes may do or cause to be done by virtue hereof. Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|-------|------|
| <hr/> | | |
| /s/ George M. Calhoun | | |
| <hr/> | | |
| George M. Calhoun Chief Executive Officer and Director (Principal Executive Officer)May 31, 2001 /s/ Charles F. Willes | | |
| <hr/> | | |
| Charles F. Willes Chief Financial Officer (Principal and Accounting Officer)May 31, 2001 /s/ Mark D. Brodsky | | |
| <hr/> | | |
| Mark D. Brodsky DirectorMay 31, 2001 /s/ Thomas L. Powers | | |
| <hr/> | | |
| Thomas L. Powers DirectorMay 31, 2001 /s/ Norbert Lou | | |
| <hr/> | | |
| Norbert Lou DirectorMay 31, 2001 | | |

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Exhibit Index

| Exhibit | Description |
|--|--|
| 2.1(1) | Transaction Agreement, dated November 1, 2000, by and among the Company, Illinois Superconductor Canada Corporation and Lockheed Martin Canada, Inc. |
| 5.1* | |
| Opinion of Pepper Hamilton LLP regarding legality of securities being registered | |
| 23.1* | |
| Consent of Grant Thornton LLP | |
| 23.2* | |
| Consent of Ernst & Young LLP | |
| 23.3* | |
| Consent of Pepper Hamilton | |

LLP
(included in
its Opinion
filed as
Exhibit 5.1
hereto)24.1*
Powers of
Attorney
(included
on
signature
page)

(1) Incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the SEC on January 4, 2001.

* Filed herewith.