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IONATRON, INC.
Form S-3
November 30, 2005

As filed with the Securities and Exchange Commission on November 30, 2005
Registration No. 333-

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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
Under
THE SECURITIES ACT OF 1933

IONATRON, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other
jurisdiction of
incorporation or
organization)

3590 East Columbia Street
Tucson, Arizona 85714
(520) 628-7415
(Address, including zip code,
and telephone number, including
area code, of registrant's
principal executive offices)

77-0262908
(IRS employer
identification
number)

Thomas C. Dearmin
Chief Executive Officer
Ionatron, Inc.
3590 East Columbia Street
Tucson, Arizona 85714
(520) 628-7415
(Name, address, including zip code, and telephone number,
including area code, of agent for service)

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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

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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 each Class of Securities to be Registered	Amount To be Registered	Proposed Maximum Offering Price Per Security(2)	Proposed Maximum Aggregate Offering Price(2)
Common stock, par value \$0.001 per share (1)	2,351,670(3)	\$10.325	\$24,280,992.75
6.5% Series A Redeemable Convertible Preferred Stock	720,000	\$25.00	\$18,000,000
Total Fee.....			

(1) Includes (i) 2,250,003 shares of common stock issuable upon a conversion of 6.5% Series A Redeemable Convertible Preferred Stock (the "Series A Preferred Stock") and which may otherwise be issuable under the Certificate of Designation of Series A Preferred Stock in connection with a change of control of the registrant and (ii) 101,667 shares of common stock issuable upon exercise of outstanding warrants. All of the shares of Series A Preferred Stock and shares of common stock being registered hereby are being offered for the accounts of selling stockholders who acquired the Series A Preferred Stock and warrants in a private placement. Except as set forth in the footnotes below, no other shares of the registrant's common stock are being registered pursuant to this offering.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) of the Securities Act of 1933, based upon the average of the high and low sales prices of the common stock as reported on the Nasdaq National Market on November 29, 2005.

(3) Pursuant to Rule 416 of the Securities Act of 1933, there are also being registered hereunder additional shares of common stock as may be issued to the selling stockholders because of any future stock dividends, stock distributions, stock splits or similar capital readjustments or other similar transactions.

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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 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

The information in this prospectus is not complete and may be changed. Securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION
DATED NOVEMBER 30, 2005

IONATRON, INC.

2,351,670 Shares of Common Stock

720,000 Shares of 6.5% Series A Redeemable Convertible Preferred Stock

This prospectus relates to up to 2,351,670 shares of the common stock of Ionatron, Inc. and 720,000 shares of 6.5% Series A Preferred Stock (the "Series A Preferred Stock") issued in a private placement completed in October 2005, which have been registered for resale by some of our securityholders pursuant to this prospectus. The shares of common stock and Series A Preferred Stock may be offered and sold to the public from time to time.

The common stock and the Series A Preferred Stock may be offered from time to time by the selling securityholders through ordinary brokerage transactions in the over-the-counter markets, in negotiated transactions or otherwise, at market prices prevailing at the time of sale or at negotiated prices and in other ways as described in the "Plan of Distribution." The shares of common stock being offered include: (i) an aggregate of up to 2,250,003 shares of common stock issuable upon conversion of Series A Preferred Stock or otherwise issuable under the Certificate of Designation of Series A Preferred Stock as more fully described in this prospectus under the caption "Selling Securityholders" and (ii) up to 101,667 shares of common stock issuable upon exercise of outstanding warrants. Ionatron will not receive any of the proceeds from any sale of common stock by the selling securityholders.

The common stock is listed for trading on the Nasdaq National Market under the symbol "IOTN". On November 29, 2005, the closing sale price of the common stock as reported by the Nasdaq National Market was \$10.43.

An investment in the common stock is speculative and involves a high degree of risk. See "Risk Factors" beginning on Page 8.

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

The date of this Prospectus is _____, 200__.

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FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus and in the documents incorporated by reference herein constitute forward-looking statements within the meaning of the securities laws. Forward-looking statements include all statements that do not relate solely to the historical or current facts, and can be identified by the use of forward looking words such as "may", "believe", "will", "expect", "expected", "project", "anticipate", "anticipated estimates", "plans", "strategy", "target", "prospects" or "continue". These forward looking statements are based on the current plans and expectations of our management and are subject to a number of uncertainties and risks that could significantly affect our current plans and expectations, as well as future results of operations and financial condition and may cause our actual results, performances or achievements to be materially different from any future results, performances or achievements expressed or implied by such forward-looking statements. Important factors that could cause our actual results to differ materially from our expectations include, among others, those set forth under the caption "Risk Factors." In making these forward-looking statements, we claim the protection of the safe-harbor for forward-looking statements contained in the Private Securities Reform Act of 1995. Although we believe that the expectations reflected in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to have been correct. We do not assume any obligation to update these forward-looking statements to reflect actual results, changes in assumptions, or changes in other factors affecting such forward-looking statements.

The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the common stock and preferred stock offered under this prospectus. The registration statement can be read at the SEC web site or at the SEC offices mentioned under the heading "Where You Can Find More Information."

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Ionatron, was formed on June 3, 2002 to develop and market Directed Energy Weapon technology products initially for sale to the U.S. Government. The goal of the Company is to produce products that incorporate our technology initially for specific U.S. Government customer applications and platforms. Ionatron and the U.S. Government have entered into several contracts for products and services as well as Cooperative Research and Development Agreements for joint research on Laser Induced Plasma Channel ("LIPC") based directed energy weapons. We expect to offer U.S. Government approved versions of our products for commercial security applications in the future. During 2003 and 2002, the Company engaged in research and development and business development activities culminating in our first U.S. Government contract in September of 2003. During 2004 we demonstrated the laser guided man-made lightning directed energy technology in the laboratory; demonstrated the technology effects on a variety of targets both under U.S. Government contract and using internal research and development funding; delivered a compact laser source specifically designed to enable the technology under a U.S. Government contract; and commenced a U.S. Government contract for the development of a system on a mobile platform for field demonstration and testing. In 2005, we developed a counter IED ("Improvised Explosive Device") vehicle for use in Iraq called the Joint IED Neutralizer ("JIN"). Our JIN units have been tested by the government and have been determined to have military utility - which the government requires before it will consider ordering production units.

Through North Star Power Engineering Inc., a wholly-owned subsidiary acquired in September 2004, we are involved in the design and manufacture of a broad range of high voltage equipment for the defense, aerospace, semi-conductor, and medical industries.

Ionatron incorporated under the laws of the State of Delaware in 2002. On March 18, 2004, a subsidiary of U.S. House & Garden Inc, a non-operating, publicly traded company merged into Ionatron, Inc. Ionatron's principal offices are located at 3590 East Columbia Street, Tucson, Arizona 85714, and its telephone number is (520) 628-7415.

Unless the context requires otherwise, reference in this prospectus to "we", "us", "our", "Ionatron" or "Company" refers to Ionatron, Inc.

Recent Developments

Financing

Description of Securities Issued in the Financing

General. On October 27, 2005 we sold an aggregate of 720,000 shares (the "Shares") of its 6.5% Series A Redeemable Convertible Preferred Stock (the "Series A Preferred Stock") with a stated value of \$25 per share to 16 institutional accredited investors and one accredited investor for aggregate gross proceeds of \$18,000,000 (the "Financing"). The Series A Preferred has a liquidation preference of \$25.00 per Share. The Series A Preferred Stock will bear dividends at the rate of 6.5% of the liquidation preference per share per annum, which shall accrue from the date of issuance, and shall be payable quarterly on February 1, May 1, August 1 and November 1 of each year, commencing May 1, 2006, to the holders of record at the close of business on the preceding January 15, April 15, July 15 and October 15, respectively.

The Series A Preferred Stock will rank, with respect to dividend rights and rights upon liquidation, winding-up or dissolution:

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- o junior to all of the existing and future liabilities, whether or not for borrowed money;
- o junior to each class or series of our capital stock the terms of which expressly provide that it will rank senior to the Series A Preferred Stock;
- o on a parity with any other class or series of our capital stock that has terms which expressly provide that it will rank on a parity with the Series A Preferred Stock;
- o senior to the Common Stock and each other class or series of capital stock that has terms which do not expressly provide that it will rank senior to or on a parity with the Series A Preferred Stock; and
- o effectively junior to all of the existing and future liabilities of existing and future subsidiaries.

Holders of the Series A Preferred Stock will have no voting rights with respect to such shares except as required by law and except that we may not create or increase the amount of any class or series of capital stock that ranks senior to the Series A Preferred Stock or amend its certificate of incorporation or alter or change any power, preference or special right of the outstanding Series A Preferred Stock in any manner materially adverse to the interest of the holders thereof without the consent of the holders of at least two-thirds of the shares of Series A Preferred Stock then outstanding.

Conversion. Each share of Series A Preferred Stock is convertible at any time at the option of the holder into a number of shares (the "Conversion Shares") of common stock equal to the liquidation preference (plus any accrued and unpaid dividends for periods prior to the dividend payment date immediately preceding the date of conversion by the holder) divided by the conversion price (initially \$12.00 per share, subject to adjustment in the event of a stock dividend or split, reorganization, recapitalization or similar event.)

Redemption. We may redeem the Series A Preferred Stock in whole or in part at any time commencing November 1, 2008 and continuing through October 31, 2010, upon at least 30 days' notice, at a redemption price, payable in cash, equal to 100% of the liquidation preference of the shares to be redeemed, plus accrued and unpaid dividends thereon to, but excluding, the redemption date if: (1) the closing price of the Common Stock has equaled or exceeded 140% of the then effective conversion price on each of at least 20 trading days within a period of 30 consecutive trading days ending within five trading days prior to the date the Company mails the notice of redemption; (2) the Common Stock is listed on a U.S. national securities exchange or The Nasdaq Stock Market; and (3) a shelf registration statement covering resales of the Series A Preferred Stock and the Common Stock issuable upon conversion of the Series A Preferred Stock is effective on the redemption date, unless registration is no longer required.

In addition, beginning November 1, 2010, we may redeem the Series A Preferred Stock in whole or in part, upon at least 30 days' notice, at a redemption price, payable in cash, equal to 100% of the liquidation preference of the Series A Preferred Stock to be redeemed, plus accrued and unpaid dividends thereon to, but excluding, the redemption date, if: (1) the Common Stock is listed on a U.S. national securities exchange or The Nasdaq Stock Market; and (2) a shelf registration statement covering resales of the Preferred Stock and the Common Stock issuable upon conversion of the Series A preferred stock is effective on the redemption date, unless registration is no longer required.

Repurchase Upon a Change of Control. If a Change of Control (as defined in the Certificate of Designation of the Series A Preferred Stock (the

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"Designation") occurs, the holders of Preferred Stock may require us to purchase all or part of their outstanding shares of Preferred Stock at a repurchase price equal to 101% of their liquidation preference, plus accrued and unpaid dividends thereon to, but excluding, the repurchase date. We will have the option to pay for these shares either in cash, shares of Common Stock valued at 95% of the weighted average closing sale price of the Common Stock for the ten-trading day period ending on the third trading day prior to the date of purchase, or a combination of cash and shares of Common Stock.

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If a Make Whole Change of Control (defined below) becomes effective prior to December 11, 2007, holders of Series A Preferred Stock shall be entitled to receive a make whole premium, payable in shares of Common Stock or in the same form of consideration into which all or substantially all of the Common Stock has been converted or exchanged in connection with the Make Whole Change of Control. The make whole premium is a dollar amount as specified in the Designation and will be based on the effect date of the Make Whole Change of Control. Holders of Preferred Stock will not be entitled to the make whole premium if the per share cash consideration paid to our Common Stock holders for the related Make Whole Change of Control as determined in accordance with the Designation is less than \$10.34 or greater than \$20.68 (which amounts are subject to adjustment as of any date on which the conversion rate is adjusted).

A "Make Whole Change of Control" means a change of control transaction involving a merger or consolidation in which we are not the surviving entity, unless (x) at least 90% of the consideration (excluding cash payments for fractional shares and cash and cash payments for dissenters' appraisal rights) in the make whole change of control consists of common stock of a United States company traded on a U.S. national securities exchange or quoted on the Nasdaq Stock Market (or will be so quoted or traded when issued or exchanged in connection with such transaction) and (y) as a result of such transaction or transactions, the outstanding shares of Series A Preferred Stock become convertible into such common stock.

Registration Rights

In connection with the Financing, we entered into a registration rights agreement with each purchaser of Series A Preferred Stock in which the Company agreed to file a shelf registration statement with the SEC covering the resale of Shares and the shares of Common Stock issuable upon conversion of the Shares within 45 days after the closing. We also agreed in the registration rights agreement to use its best efforts to have the registration statement declared effective within 150 days, subject to extension in certain circumstances to date no later than March 31, 2006 and to keep the shelf registration statement effective for a specified period.

If the shelf registration statement is not timely filed or made effective or if the prospectus in the registration statement is unavailable for periods in excess of specified periods (referred to as a "registration default") or we fail to make a dividend payment within five business days following a dividend payment date, the dividend rate shall immediately and automatically increase by 1% from 6.5% of the liquidation preference per share of Series A Preferred Stock to 7.5% of such liquidation preference for as long as such failure continues and immediately return to 6.5% of the liquidation preference per shares of Series A Preferred Stock per annum at such time as such failure no longer continues), but only up to 90 days in the case of a registration default and thereafter in the case of a registration default if, at such time, the failure is continuing, the dividend rate shall immediately and automatically further increase to 10% of the liquidation preference per offered share per annum for as long as such failure continues and shall immediately and automatically return to 6.5% at such time as

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the failure is no longer continuing; and, if a dividend payment default occurs for two consecutive dividend payment dates, the dividend rate shall immediately and automatically increase to 10% of the liquidation preference per share of Series A Preferred Stock per annum until such dividend payment default is no longer continuing.

Fees

We entered into an agency agreement with J Giordano Securities Group ("J Giordano"), pursuant to which J Giordano served as placement agent in connection with the Financing. For serving as placement agent, J Giordano received a placement agent fee of \$1,220,000 and issued to J Giordano five-year warrants to purchase an aggregate of 101,666 shares of Common Stock (the "Agent Warrants"). The Agent Warrants are exercisable at a price of \$12.00 per share and contain a cashless exercise provision. We granted J Giordano certain registration rights with respect to the Shares of Common Stock issuable upon exercise of the Agent Warrants. In addition, if within twelve months following the closing of the Financing, we sell, directly or indirectly, securities to any purchasers (other than securities in connection with a working capital loan or facility or project debt financing), J Giordano will be entitled to receive the same compensation with respect to such sale of securities as it will receive in connection with the Financing.

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Use of Proceeds

The net proceeds to us from the Financing, after deducting placement agent fees and expenses and other expenses were approximately \$16.6 million. We used a portion of the net proceeds from the Financing to repay the \$2.8 million principal amount note payable to our Chairman of the Board under its revolving credit facility.

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RISK FACTORS

Prospective investors should consider carefully the following risk factors before purchasing any shares of the common stock offered hereby by the selling securityholders.

Risk Related to Our Business

We have a history of losses and may not be able to achieve and maintain profitable operations.

We have incurred net losses since our formation in June 2002, including net losses of \$747,675, \$3,242,109, \$3,261,005 and \$3,719,629 for the period of inception through December 31, 2002, the years ended December 31, 2003 and 2004, and the nine months ended September 30, 2005, respectively. Additionally, losses are continuing to date. Our ability to achieve profitable operations is dependent upon, among other things, our ability to obtain sufficient government contracts and to complete the development of products based on our technologies. We cannot assure you that we will be able to significantly increase our revenues or achieve and maintain profitability.

Our future success will depend on our ability to develop new technologies and applications that address the needs of our markets.

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Both our defense and commercial markets are characterized by rapidly changing technologies and evolving industry standards. Accordingly, our future performance depends on a number of factors, including our ability to:

- o identify emerging technological trends in our target markets;
- o develop and maintain competitive products;
- o enhance our products by improving performance and adding innovative features that differentiate our products from those of our competitors;
- o develop and manufacture and bring products to market quickly at cost-effective prices; and
- o meet scheduled timetables for the development, certification and delivery of new products.

We believe that, in order to remain competitive in the future, we will need to continue to develop new products, which will require the investment of significant financial and engineering resources. The need to make these expenditures could divert our attention and resources from other projects, and we cannot be sure that these expenditures will ultimately lead to the timely development of new technology. Due to the design complexity of our products, we may in the future experience delays in completing development and introduction of new products. Any delays could result in increased costs of development, deflect resources from other projects or loss of contracts. In addition, there can be no assurance that the market for our products will develop or continue to expand as we currently anticipate. The failure of our technology to gain market acceptance could significantly reduce our revenues and harm our business. Furthermore, we cannot be sure that our competitors will not develop competing technologies which gain market acceptance in advance of our products. The possibility that our competitors might develop new technology or products might cause our existing technology and products to become obsolete or create significant price competition. If we fail in our new product development efforts or our products fail to achieve market acceptance more rapidly than our competitors, our revenues will decline and our business, financial condition and results of operations will be negatively affected.

We depend on the U.S. Government for substantially all of our sales, and the loss of this relationship or a shift in government funding could have severe consequences on our prospects and financial condition.

Approximately 100%, 99% and 98% of our net sales for the years ended December 31, 2003 and 2004 and the nine months ended September 30, 2005, respectively, and were to the U.S. Government and U.S. Government contractors. Therefore, any significant disruption or deterioration of our relationship with the U.S. Government would significantly reduce our revenues. Our U.S. Government programs must compete with programs managed by other defense contractors for a limited number of programs and for uncertain levels of funding. The development of our business will depend upon the continued willingness of the U.S. government agencies to fund existing and new defense programs and, in particular, to continue to purchase our products and services. Although defense spending in the United States has recently increased, further increases may not continue and any proposed budget or supplemental budget request may not be approved. In addition, the U.S. Department of Defense may not continue to focus its spending on technologies that we incorporate in our products.

Our competitors continuously engage in efforts to expand their business

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relationships with the U.S. Government which may be at our expense and are likely to continue these efforts in the future. The U.S. Government may choose to use other defense contractors for its limited number of defense programs. In addition, the funding of defense programs also competes with non-defense spending of the U.S. Government. Budget decisions made by the U.S. Government are outside of our control and have long-term consequences for the size and structure of Ionatron. A shift in Government defense spending to other programs in which we are not involved or a reduction in U.S. Government defense spending generally could have severe consequences for our results of operations.

The U.S. Government may terminate or modify our existing contracts, which would adversely affect our revenue.

There are inherent risks in contracting with the U.S. Government, including risks peculiar to the defense industry, which could have a material adverse effect on our business, financial condition or results of operations. Laws and regulations permit the U.S. Government to:

- o terminate contracts for its convenience;
- o reduce or modify contracts if its requirements or budgetary constraints change;
- o cancel multi-year contracts and related orders if funds for contract performance for any subsequent year become unavailable;
- o shift its spending practices; and
- o adjust contract costs and fees on the basis of audits done by its agencies.

If the U.S. Government terminates our contracts for convenience, we may only recover our costs incurred or committed for settlement expenses and profit on work completed before the termination. Additionally, most of our backlog could be adversely affected by any modification or termination of contracts with the U.S. Government or contracts the prime contractors have with the U.S. Government. The U.S. Government regularly reviews our costs and performance on its contracts, as well as our accounting and general business practices. The U.S. Government may reduce the reimbursement for our fees and contract-related costs as a result of an audit. We can give no assurance that one or more of our Government contracts will not be terminated under these circumstances. Also, we can give no assurance that we would be able to procure new Government contracts to offset the revenues lost as a result of any termination of our contracts. As our revenues are dependent on our procurement, performance and payment under our contracts, the loss of one or more critical contracts could have a negative impact on our financial condition.

Our business is subject to various restrictive laws and regulations because we are a contractor and subcontractor to the U.S. Government.

As a contractor and subcontractor to the U.S. Government, we are subject to various laws and regulations that are more restrictive than those applicable to non-government contractors. We are required to obtain and maintain material governmental authorizations and approvals to run our business as it is currently conducted. New or more stringent laws or government regulations concerning government contracts, if adopted and enacted, could have a material adverse effect on our business.

Generally, government contracts are subject to oversight audits by government representatives. Responding to governmental audits, inquiries or investigations may involve significant expense and divert management attention from regular operations. Our government business is also subject to specific

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procurement regulations and a variety of socio-economic and other requirements. These requirements, although customary in government contracts, increase our performance and compliance costs. These costs might increase in the future, reducing our margins, which could have a negative effect on our financial condition. Failure to comply with these regulations and requirements could lead to suspension or debarment, for cause, from government contracting or subcontracting for a period of time. Among the causes for debarment are violations of various statutes, including those related to:

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- o procurement integrity;
- o export control;
- o government security regulations;
- o employment practices;
- o protection of the environment;
- o accuracy of records and the recording of costs; and
- o foreign corruption.

Any of these factors, which are largely beyond our control, could also negatively impact our financial condition. We also may experience problems associated with advanced designs required by the government, which may result in unforeseen technological difficulties and cost overruns. Failure to overcome these technological difficulties and the occurrence of cost overruns would have a negative impact on our results.

If we fail to win competitively awarded contracts in the future, we may experience a reduction in our sales, which could negatively affect our profitability.

Our North Star subsidiary obtains many of its U.S. Government, U.S. Government subcontractor and commercial contracts through a competitive bidding process. We cannot assure you that we will continue to win competitively awarded contracts or that awarded contracts will generate sales sufficient to result in our profitability. We are also subject to risks associated with the following:

- o the frequent need to bid on programs in advance of the completion of their design (which may result in unforeseen technological difficulties and cost overruns);
- o the substantial time and effort, including the relatively unproductive design and development required to prepare bids and proposals, spent for competitively awarded contracts that may not be awarded to us;
- o design complexity and rapid technological obsolescence; and
- o the constant need for design improvement.

Our government contracts may be subject to protest or challenge by unsuccessful bidders or to termination, reduction or modification in the event of changes in government requirements, reductions in federal spending or other factors.

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Competition within our markets may reduce our procurement of future contracts and our sales.

The defense and commercial industries in which we operate are highly competitive. Our future competitors may range from highly resourceful small concerns, which engineer and produce specialized items, to large, diversified firms and defense contractors.. Many of our potential competitors have more extensive or more specialized engineering, manufacturing and marketing capabilities and greater financial resources than we do. Consequently, these competitors may be better suited to take advantage of economics of scale and devote greater resources to develop new technologies. There can be no assurance that we can continue to compete effectively with these firms. In addition, some of our suppliers [and customers] could develop the capability to manufacture products similar to products that we are developing. This would result in them competing directly which could significantly reduce our revenues and seriously harm our business.

There can be no assurance that we will be able to compete successfully against our current or future competitors or that the competitive pressures we face will not result in reduced revenues and market share or seriously harm our business.

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We derive a substantial portion of our revenues from a limited number of contracts. Therefore, our revenues will be adversely affected if we fail to receive renewal or follow-on contracts.

Renewal and follow-on contracts are important because our contracts are typically for fixed terms. These terms vary from shorter than one year to multi-year, particularly for contracts with options. The typical term of our contracts with the U.S. government is between one and two years. The loss of revenues from our possible failure to obtain renewal or follow-on contracts may be significant because our U.S. government contracts account for a substantial portion of our revenues.

Our products may fail to perform satisfactorily in field tests at various stages of development.

Our government customers typically field test our products at various stages of development. Although we believe our technologies will perform their ultimately intended applications, many of our products have not been completed to date. Our success will ultimately depend upon our products meeting performance criteria established by our customers. Failure of a product to perform satisfactorily in a field test could result in delay of product development, cost overruns or even termination of the contract, any of which could materially effect the development of such product and our prospects, revenues and final condition.

We depend on component availability, subcontractor performance and our key suppliers to manufacture and deliver our products and services.

Our manufacturing operations are highly dependent upon the delivery of materials by outside suppliers in a timely manner. In addition, we depend in part upon subcontractors to assemble major components and subsystems used in our products in a timely and satisfactory manner. If these contract manufacturers are not willing to contract with us on competitive terms or devote adequate resources to fulfill their obligations to us, or we do not properly manage these relationships, our existing customer relationships may suffer. In addition, by undertaking these activities, we run the risks that

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- o the reputation and competitiveness of our products and services may deteriorate as a result of the reduction of our control and quality and delivery schedules and the consequent risk that we will experience supply interruptions and be subject to escalating costs; and
- o our competitiveness may be harmed by the failure of our contract manufacturers to develop, implement or maintain manufacturing methods appropriate for our products and customers.

Moreover, because most of our contracts are with Governmental agencies, we may be limited in the third parties, we can engage as component manufacturers.

We are dependent for some purposes on sole-source suppliers. If any of these sole-source suppliers fails to meet our needs, we may not have readily available alternatives. Our inability to fill our supply needs would jeopardize our ability to satisfactorily and timely complete our obligations under government and other contracts. This might result in reduced sales, termination of one or more of these contracts and damage to our reputation and relationships with our customers. We cannot be sure that materials, components, and subsystems will be available in the quantities we require, if at all.

Because the manufacturing process of our products is highly complex, errors, changes or uncertainties could disrupt production.

The manufacture of our products involve highly complex and precise processes, requiring production in a highly controlled and clean environment. Inadvertent or slight changes or uncertainties in our manufacturing processes, errors or use of defective or contaminated materials, our ability to achieve, disrupt and delay production and affect product reliability.

Our business could be adversely affected by a negative audit by the U.S. Government.

U.S. Government agencies such as the Defense Contract Audit Agency, or the DCAA, routinely audit and investigate government contractors. These agencies review a contractor's performance under its contracts, cost structure and compliance with applicable laws, regulations and standards. The DCAA also reviews the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, property, estimating, compensation and management information systems. Any costs found to be improperly allocated to a specific contract will not be reimbursed, while such costs already reimbursed must be refunded. If an audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from doing business with the U.S. Government. In addition, we could suffer serious reputational harm if allegations of impropriety were made against us.

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Our backlog is subject to reduction and cancellation.

Backlog represents products or services that our customers have committed by contract to purchase from us, our total funded backlog as of September 30, 2005 was approximately \$10,080,000. Backlog is subject to fluctuations and is not necessarily indicative of future sales. Moreover, cancellations of purchase orders or reductions of product quantities in existing contracts could substantially and materially reduce backlog and, consequently, future revenues.

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Our failure to replace canceled or reduced backlog could result in lower revenues.

We depend on the recruitment and retention of qualified personnel, and our failure to attract and retain such personnel could seriously harm our business.

Due to the specialized nature of our businesses, our future performance is highly dependent upon the continued services of our key engineering personnel and executive officers. Our prospects depend upon our ability to attract and retain qualified engineering, manufacturing, marketing, sales and management personnel for our operations. Competition for personnel is intense, and we may not be successful in attracting or retaining qualified personnel. Our failure to compete for these personnel could seriously harm our business, results of operations and financial condition.

Because many of our contracts and projects are classified for national security reasons, we may not be able to provide important information to the public.

To date, substantially all of our revenues have been derived from contracts which are classified by the U.S. Government for national security reasons. Therefore, we are prohibited from filing these contracts as exhibits to our SEC reports, registration statements and filings or provide more than the summary information that we provide in our reports, registration statements and other filings the SEC and in our press releases. Accordingly, investors may not have important information concerning our businesses and operations with which to make an informed investment decision.

The U.S. government's right to use technology developed by us limits our intellectual property rights.

We seek to protect the competitive benefits we derive from our patents, proprietary information and other intellectual property. However, we do not have the right to prohibit the U.S. government from using certain technologies developed or acquired by us or to prohibit third party companies, including our competitors, from using those technologies in providing products and services to the U.S. government. The U.S. government has the right to royalty-free use of technologies that we have developed under U.S. Government contracts. We are free to commercially exploit those government-funded technologies and may assert our intellectual property rights to seek to block other non-government users thereof, but we cannot assure you we could successfully do so,

We are subject to government regulation which may require us to obtain additional licenses and could limit our ability to sell our products outside the United States.

We may be unable to adequately protect our intellectual property rights, which could affect our ability to compete.

Protecting our intellectual property rights is critical to our ability to compete and succeed as a company. We hold a number of United States and patent applications, as well as trademark, and registrations which are necessary and contribute significantly to the preservation of our competitive position in the market. There can be no assurance that any of these patents or future patent applications and other intellectual property will not be challenged, invalidated or circumvented by third parties. In some instances, we have augmented our technology base by licensing the proprietary intellectual property of others. In the future, we may not be able to obtain necessary licenses on commercially reasonable terms. We enter into confidentiality and invention assignment agreements with our employees, and enter into nondisclosure agreements with our suppliers and appropriate customers so as to limit access to and disclosure of our proprietary information. These measures may not suffice to deter

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misappropriation or independent third party development of similar technologies. Moreover, the protection provided to our intellectual property by the laws and courts of foreign nations may not be as advantageous to us as the remedies available under United States law.

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We may face claims of infringement of proprietary rights.

There is a risk that a third party may claim our products infringe on their proprietary rights. Whether or not our products infringe on proprietary rights of third parties, infringement or invalidity claims may be asserted or prosecuted against us and we could incur significant expense in defending them. If any claims or actions are asserted against us, we may be required to modify our products or obtain licenses on commercially reasonable terms, in a timely manner or at all. Our failure to do so could adversely affect our business.

Our operations expose us to the risk of material environmental liabilities.

We are also subject to increasingly stringent laws and regulations that impose strict requirements for the proper management, treatment, storage and disposal of hazardous substances and wastes, restrict air and water emissions from our testing and manufacturing operations, and require maintenance of a safe workplace. These laws and regulations can impose substantial fines and criminal sanctions for violations, and require the installation of costly pollution control equipment or operational changes to limit pollution emissions and/or decrease the likelihood of accidental hazardous substance releases. We incur, and expect to continue to incur, substantial capital and operating costs to comply with these laws and regulations. In addition, new laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new clean-up requirements could require us to incur costs in the future that would have a negative effect on our financial condition or results of operations.

The unpredictability of our results may harm the trading price of our securities, or contribute to volatility.

Our operating results may vary significantly over time for a variety of reasons, many of which are outside of our control, and any of which may harm our business. The value of our securities may fluctuate as a result of considerations that are difficult to forecast, such as:

- o the size and timing of contract receipt and funding;
- o changes in U.S. Government policies and government budgetary policies;
- o termination or expiration of a key government contract;
- o our ability and the ability of our key suppliers to respond to changes in customer orders;
- o timing of our new product introductions and the new product introductions of our competitors;
- o adoption of new technologies and industry standards;
- o competitive factors, including pricing, availability and demand for competing products fluctuations in foreign currency exchange rates;

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- o conditions in the capital markets and the availability of project financing;
- o regulatory developments;
- o general economic conditions;
- o changes in the mix of our products;
- o cost and availability of components and subsystems; and
- o price erosion.

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Our management holds a majority of our outstanding voting stock and has control over stockholder matters.

As of November 29, 2005, our management owned approximately 65% of our outstanding common stock. Accordingly, they can exert significant influence over matters, which require stockholder vote, including the election of directors, amendments to our Certificate of Incorporation or approval of the dissolution, merger, or sale of Ionatron, our subsidiaries or substantially all of our assets. This concentration of ownership and control by management could delay or prevent a change in our control or other action, even when a change in control or other action might be in the best interests of other stockholders.

A large number of shares of our common stock could be sold in the market in the near future, which could depress our stock price.

As of November 29, 2005, we had outstanding approximately 72 million shares of common stock. A substantial portion of our shares are currently freely trading without restriction under the Securities Act of 1933, having been held by their holders for over two years and are eligible for sale under Rule 144(k). There are currently outstanding options to purchase approximately 34 million shares of our common stock, most of which have an average exercise price of substantially below our current market price. To the extent any of our options are exercised, your percentage ownership will be diluted and our stock price could be further adversely affected. Moreover, as the underlying shares are sold, the market price could drop significantly if the holders of these restricted shares sell them or if the market perceives that the holders intend to sell these shares..

Provisions of our corporate charter documents could delay our prevent change of control.

Our Certificate of Incorporation authorizes our board of directors to issue up to 1,000,000 shares of "blank check" preferred stock without stockholder approval, in one or more series and to fix the dividend rights, terms, conversion rights, voting rights, redemption rights and terms, liquidation preferences, and any other rights, preferences, privileges, and restrictions applicable to each new series of preferred stock. In addition, our Certificate of Incorporation divides our board of directors into three classes, serving staggered three-year terms. At least two annual meetings, instead of one, will be required to effect a change in a majority of our board of directors. We also have a rights agreement, commonly known as a "poison pill" in place which provides that in the event an individual or entity becomes a beneficial holder of 12% or more of the shares of our capital stock, without the approval of the board of directors, our other stockholders shall have the right to

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purchase shares of our (or in some cases the acquiror's) common stock from us at 50% of its then market value. The designation of preferred stock in the future, the classification of our board of directors, its three classes and the rights agreement could make it difficult for third parties to gain control of our company, prevent or substantially delay a change in control, discourage bids for our common stock at a premium, or otherwise adversely affect the market price of our common stock.

Risks Related to the Transaction

There is currently no public market for the preferred shares, and an active trading market may not develop for them. The failure of a market to develop for the preferred shares could adversely affect the liquidity and value of your preferred shares.

The Series A Preferred Stock is a new issue of securities, and there is no existing market for the preferred shares. A market may not develop for the Series A Preferred Stock, and if a market does develop, it may not be sufficiently liquid for your purposes. If an active, liquid market does not develop for the Series A Preferred Stock, the market price and liquidity of the Series A Preferred Stock may be adversely affected. If any shares of the Series A Preferred Stock are traded after their initial issuance, they may trade at a discount from the initial offering price.

The liquidity of the trading market, if any, and future trading prices of the preferred stock will depend on many factors, including, among other things, the market price of our common stock, our ability to register the resale of the preferred stock, our operating results, financial performance and prospects, the market for similar securities and the overall securities market, and may be adversely affected by unfavorable changes in these factors. The market for the preferred shares may be subject to disruptions, which could have a negative effect on the holders of the preferred shares, regardless of our operating results, financial performance or prospects.

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The price of our common stock, and therefore of the Series A Preferred Stock, may fluctuate significantly; and this may make it difficult for you to resell the preferred shares when you want or at prices you find attractive.

The price of our common stock on the Nasdaq Stock Market constantly changes. We expect that the market price of our common stock will continue to fluctuate. In addition, because the preferred shares are convertible into our common stock, volatility or depressed prices for our common stock could have a similar effect on the trading price of the Series A Preferred Stock.

Our ability to pay dividends on the Series A Preferred Stock and our common stock is limited.

Under the Delaware General Corporation Law, we may pay dividends, in cash or otherwise, only if we have surplus in an amount at least equal to the amount of the relevant dividend payment. Any payment of cash dividends will depend upon our financial condition, capital requirements, earnings and other factors deemed relevant by our board of directors. Further, future agreements could restrict our ability to pay cash dividends.

The Series A Preferred Stock ranks junior to all of our liabilities as well as the liabilities of our subsidiaries.

The ranking of the Series A Preferred Stock with respect to the payment of

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dividends and upon liquidation, dissolution or winding up may prevent us from paying cash dividends. The Series A Preferred Stock ranks junior in right of payment to all of our existing and further liabilities. In the event that we do not have sufficient funds to pay both our debt service and accrued dividends on the Series A Preferred Stock, we will first limit or stop payment such dividends to holders of Series A Preferred Stock until all amounts due on our liabilities are paid. In the event of our bankruptcy, liquidation or winding-up, our assets will be available to pay the liquidation preference of, and accrued dividends on, the Series A Preferred Stock only after all our indebtedness and other liabilities have been paid. In addition, the Series A Preferred Stock effectively ranks junior to all existing and future liabilities of our subsidiaries and the capital stock (other than common stock) of our subsidiaries held by third parties. The rights of holders of the Series A Preferred Stock to participate in the assets of our subsidiaries upon any liquidation or reorganization of any subsidiary will rank junior to the prior claims of that subsidiary's creditors and equity holders. In the event of our bankruptcy, liquidation or winding-up, there may not be sufficient assets remaining to pay amounts due on any or all of the Series A Preferred Stock then outstanding.

We may not be able to pay the purchase price of the Series A Preferred Stock upon a change of control if the holders exercise their right to require us to purchase such securities.

If we undergo a change of control, subject to limited exceptions, we will be required to offer to purchase the Series A Preferred Stock at a purchase price equal to 101% of the then liquidation preference, plus accrued and unpaid dividends, plus the make whole premium, if applicable. Any of our future debt agreements may contain a similar provision. We may not have sufficient funds to make the required repurchase in cash at such time or the ability to arrange necessary financing on acceptable terms. In addition, our ability to repurchase the Series A Preferred Stock in cash may be limited by law or the terms of other agreements relating to our debt outstanding at the time. Important corporate events, such as takeovers, recapitalizations or similar transactions, may not constitute a designated event under the Certificate of Designation governing the Series A Preferred Stock and thus not permit the holders of the Series A Preferred Stock to require us to repurchase or redeem their Series A Preferred Stock shares.

Holders of the Series A Preferred Stock will have no rights as a common stockholder until they acquire our common stock.

Until holders of Series A Preferred Stock acquire shares of our common stock upon conversion of the Series A Preferred Stock they will have no rights with respect to our common stock, including voting rights (except as required by applicable state law or our certificate of incorporation), rights to respond to tender offers and rights to receive any dividends or other distributions on our common stock.

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USE OF PROCEEDS

We will not receive any proceeds from any sales of shares of common stock made from time to time hereunder by the selling securityholders. Any proceeds we receive from the exercise of warrants for cash will be added to our working capital. We have agreed to bear the expenses in connection with the registration of the common stock being offered hereby by the selling securityholders.

SELLING SECURITYHOLDERS

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The following table sets forth information as of November 30, 2005, with respect to the securityholders for which shares are being registered for sale.

The table below assumes for calculating each selling securityholder's beneficial percentage ownership that options, warrants and/or convertible securities that are held by such selling securityholder (but not held by any other selling securityholder or person) and are exercisable or convertible within 60 days from the date of this prospectus have been exercised or converted. The table also assumes the sale of all of the shares registered for sale by the selling securityholder pursuant to this prospectus.

Selling Securityholders	Number of Shares of Common Stock Beneficially Owned Prior to the Offering	Shares of Common Stock Being Offered	Number of Shares of Common Stock Beneficially Owned After the Offering	Shares of Preferred Stock Being Offered
Clarion Capital Corporation (1)	41,667	62,500 (2)	0	20,000
Alki Fund Ltd. (3)	316,667	25,000 (2)	300,000	8,000
Alki Partners L.P. (3)	325,000	37,500 (2)	300,000	12,000
Artis Technology Partners, L.P. (4)	35,107	3,032 (2)	33,086	970
Artis Technology 2X, L.P. (4)	51,191	4,875 (2)	47,921	1,560
Artis Technology Partners Ltd. (5)	791,474	67,782 (2)	746,286	21,560
Artis Technology 2X Ltd. (5)	1,020,043	105,219 (2)	949,897	33,670
Artis Technology Qualified 2X, L.P. (4)	442,536	43,157 (2)	413,765	13,810
Artis Technology Qualified Partners, L.P. (4)	280,125	25,938 (2)	262,833	8,300
Omicron Master Trust (6)	83,333	125,000 (2)	0	40,000
Ellsworth Convertible Growth & Income Fund, Inc.	125,000	187,500 (2)	0	60,000
Bancroft Convertible Fund, Inc.	125,000	187,500 (2)	0	60,000

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Selling Securityholders -----	Number of Shares of Common Stock Beneficially Owned Prior to the Offering -----	Shares of Common Stock Being Offered -----	Number of Shares of Common Stock Beneficially Owned After the Offering -----	Shares of Preferred Stock Being Offered -----
SDS Capital Group SPC, Ltd. (7)	25,000	37,500 (2)	0	12,000
Vicis Capital Master Fund (8)	500,000	750,000 (2)	0	240,000
Heller Capital Investments, LLC (9)	41,667	62,500 (2)	0	20,000
Alexandra Global Master Fund, Ltd.	333,333	500,000 (2)	0	160,000
Trinity Pass L.P. (10)	16,667	25,000 (2)	0	8,000
J Giordano Securities Group (12)	54,709	54,709 (13)	0	0
Richard T. Cunniffe	7,000	7,000	0	0
Justin Figari	1,175	1,175	0	0
Alan Kleinman	3,800	3,800	0	0
Mark Behrman	20,733	20,733	0	0
James R. Brenits	8,000	8,000	0	0
John Drummond	3,750	3,750	0	0
David Adams Stichter	2,500	2,500	0	0

* Less than 1%

1. The selling securityholder has advised us that the natural person that has voting and dispositive power over the securities is Morton A. Cohen, Chairman of the selling securityholder.
2. Reflects (i) the number of shares of common stock issuable upon conversion of Series A Preferred Stock, and/or as payment of the purchase price upon redemption of the Series A Preferred Stock in conjunction with certain changes of control and (ii) an additional number of shares of common stock equal to 50% of the number of shares of common stock issuable upon conversion of the Series A Preferred Stock held by the selling securityholder which may be issued as payment of dividends upon the Series A Preferred Stock and/or as payment of the purchase price upon any such redemption of the Series A Preferred Stock.
3. The selling securityholder has advised us that Scott Willfong is the general partner of the selling securityholder.
4. The selling securityholder has advised us that the natural person that has

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voting and dispositive power over the securities is Stuart L. Peterson, the sole owner of Artis Capital Management, Inc., which is the sole member of Artis Capital Management, LLC, which is the general partner of the selling securityholder.

5. The selling securityholder has advised us that the natural person that has voting and dispositive power over the securities is Stuart L. Peterson, the sole owner of Artis Capital Management, LLC, which is the investment advisor and attorney-in-fact of the selling securityholder.

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6. Omicron Capital, L.P., a Delaware limited partnership ("Omicron Capital"), serves as investment manager to Omicron Master Trust, a trust funned under the laws of Bermuda ("Omicron"), Omicron Capital, Inc., a Delaware corporation ("OCI"), serves as general partner of Omicron Capital, and Winchester Global Trust Company Limited ("Winchester") serves as the trustee of Omicron. By reason of such relationships, Omicron Capital and OCI may be deemed to share dispositive power over the shares of our common stock owned by Omicron, and Winchester may be deemed to share voting and dispositive power over the shares of our common stock owned by Omicron. Omicron Capital, OCI and Winchester disclaim beneficial ownership of such shares of our common stock. Omicron Capital has delegated authority from the board of directors of Winchester regarding the portfolio management decisions with respect to the shares of common stock owned by Omicron and, as of such date. Mr. Olivier H. Morali and Mr. Bruce T. Bernstein, officers of OCI, have delegated authority from the board of directors of OCI regarding the portfolio management decisions of Omicron Capital with respect to the shares of common stock owned by Omicron. By reason of such delegated authority, Messrs. Morali and Bernstein may be deemed to share dispositive power over the shares of our common stock owned by Omicron, Messrs. Morali and Bernstein disclaim beneficial ownership of such shares of our common stock and neither of such persons has any legal right to maintain such delegated authority. No other person has sole or shared voting or dispositive power with respect to the shares of our common stock being offered by Omicron, as those terms are used for purposes under Regulation 13D-G of the Securities Exchange Act of 1934, as amended. Omicron and Winchester are not "affiliates" of one another, as that term is used for purposes of the Securities Exchange Act of 1934, as amended, or of any other person named in this prospectus as a selling securityholder. No person or "group" (as that term is used in Section 13(d) of the Securities Exchange Act of 1934, as amended, or the SEC's Regulation 13D-G) controls Omicron and Winchester.
7. The selling securityholder has advised us that the natural person that has voting and dispositive power over the securities is Steve Derby, the managing member of SDS Management, LLC, which is the investment manager of the selling securityholder.
8. The selling securityholder has advised us that the natural persons that have voting and dispositive power over the securities are John Succo, Sky Lucas and Shad Stastney, each a member of Vicis Capital, LLC, which is the investment manager of the selling securityholder.
9. The selling securityholder has advised us that Ronald Heller is the general partner of the selling securityholder.
10. The selling securityholder has advised us that an affiliate of the selling securityholder is the placement agent for our Financing. The selling securityholder has also advised us that the natural person that has voting

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and dispositive power over the securities is James Giordano who is a member of Giordano & Company LLC, which is the general partner of the selling securityholder.

11. The selling securityholder has advised us that the natural person that has voting and dispositive power over the securities is James Giordano.
12. The selling securityholder acted as placement agent for our Financing.
13. Represents shares of common stock available upon exercise of warrants.

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PLAN OF DISTRIBUTION

The selling securityholders and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of our common stock and the Series A Preferred Stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling securityholders may use any one or more of the following methods when selling shares:

- o ordinary brokerage transactions and transactions in which the broker/dealer solicits purchasers;
- o block trades in which the broker/dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- o purchases by a broker/dealer as principal and resale by the broker/dealer for its account;
- o an exchange distribution in accordance with the Rules of the applicable exchange;
- o privately negotiated transactions;
- o settlement of short sales;
- o broker/dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- o a combination of any such methods of sale; and
- o any other method permitted pursuant to applicable law.

The selling securityholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker/dealers engaged by the selling securityholders may arrange for other brokers/dealers to participate in sales. Broker/dealers may receive commissions from the selling securityholders (or, if any broker/dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling securityholders do not expect these commissions to exceed what is customary in the types of transactions involved.

The selling securityholders may from time to time pledge or grant a security interest in some or all of the shares of common stock and Series A Preferred Stock owned by them and, if they default in the performance of their

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secured obligations, the pledgees or secured parties may offer and sell the shares of common stock and Series A Preferred Stock from time to time under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933 amending the list of selling securityholders to include the pledgee, transferee or other successors in interest as selling securityholders under this prospectus.

The selling stockholders and any broker/dealers or agents that are involved in selling the shares 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 the shares purchased by them may be deemed to be underwriting commissions under the Securities Act. The selling securityholders have informed Ionatron that they do not have any agreement or understanding, directly or indirectly, with any person to distribute Ionatron common stock.

Ionatron is required to pay all fees and expenses incident to the registration of the shares. Ionatron has agreed to indemnify the selling securityholders who purchased securities in the Financing against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

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INDEMNIFICATION

Sections 145 of the General Corporation Law of the State of Delaware provides for the indemnification of officers and directors under certain circumstances against expenses incurred in successfully defending against a claim and authorizes Delaware corporations to indemnify their officers and directors under certain circumstances against expenses and liabilities incurred in legal proceedings involving such persons because of their being or having been an officer or director.

Section 102(b) of the Delaware General Corporation Law permits a corporation, by so providing in its certificate of incorporation, to eliminate or limit director's liability to the corporation and its stockholders for monetary damages arising out of certain alleged breaches of their fiduciary duty. Section 102(b)(7) provides that no such limitation of liability may affect a director's liability with respect to any of the following: (i) breaches of the director's duty of loyalty to the corporation or its stockholders; (ii) acts or omissions not made in good faith or which involve intentional misconduct of knowing violations of law; (iii) liability for dividends paid or stock repurchased or redeemed in violation of the Delaware General Corporation Law; or (iv) any transaction from which the director derived an improper personal benefit. Section 102(b)(7) does not authorize any limitation on the ability of the corporation or its stockholders to obtain injunctive relief, specific performance or other equitable relief against directors.

Article Ninth of Ionatron's Certificate of Incorporation and Article XVIII of Ionatron's By-laws provide that all persons who the registrant is empowered to indemnify pursuant to the provisions of Section 145 of the General Corporation Law of the State of Delaware (or any similar provision or provisions of applicable law at the time in effect), shall be indemnified by Ionatron to the full extent permitted thereby. The foregoing right of indemnification shall not be deemed to be exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors, or otherwise.

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Article Tenth of Ionatron's Certificate of Incorporation provides that no director of Ionatron shall be personally liable to Ionatron or its stockholders for any monetary damages for breaches of fiduciary duty as a director, provided that this provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the registrant or its stockholders; (ii) for acts or omissions in good faith or which involve intentional misconduct or a knowing violation of law; (iii) under Section 174 of the General Corporation Law of the State of Delaware; or (iv) for any transaction from which the director derived an improper personal benefit.

LEGAL MATTERS

The legality of the shares of common stock offered hereby was passed upon for Ionatron, Inc. by Blank Rome LLP, New York, New York.

EXPERTS

The financial statements incorporated by reference to Ionatron, Inc.'s Annual Report on Form 10-K for the fiscal year ended December 31, 2004 in this Prospectus have been audited by BDO Seidman, LLP, an independent registered public accounting firm, to the extent and for the periods set forth in their reports incorporated herein by reference, and are incorporated herein in reliance upon such reports given upon the authority of said firm as experts in auditing and accounting.

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WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934 and we file reports and other information with the SEC.

You may read and copy any of the reports, statements, or other information we file with the SEC at the SEC's Public Reference Section at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC maintains a Web site at <http://www.sec.gov> that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC. The Nasdaq Stock Market maintains a Web site at <http://www.nasdaq.com> that contains reports, proxy statements and other information filed by us.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

We have filed with the SEC, Washington, D.C., a registration statement on Form S-3 under the Securities Act of 1933, covering the securities offered by this prospectus. This prospectus does not contain all of the information that you can find in our registration statement and the exhibits to the registration statement. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance such statement is qualified by reference to each such contract or document filed or incorporated by reference as an exhibit to the registration statement.

The SEC allows us to "incorporate by reference" the information we file with them. This means that we can disclose important information to you by referring you to other documents that are legally considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede the information in this prospectus and the documents listed

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below. We incorporate by reference the documents listed below, and any future filings made with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until the selling stockholders sell all the shares.

The following documents previously filed by Ionatron with the Securities and Exchange Commission are incorporated herein by reference and shall be deemed a part of this prospectus:

- (a) Annual Report on Form 10-K for the fiscal year ended December 31, 2004;
- (b) Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2005, June 30, 2005 and September 30, 2005;
- (c) Current Report on Form 8-K filed with the SEC on July 5, 2005;
- (d) Current Report on Form 8-K filed with the SEC on October 28, 2005.
- (e) The description of our common stock contained in our Registration Statement on Form 8-A dated March 4, 1992, together with any amendment or report filed with the SEC for the purpose of updating the description; and
- (f) All documents filed by Ionatron pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the initial registration statement and prior to the effectiveness of the registration statement.

All documents we file pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, after the date of this prospectus and before the termination of the offering of the securities hereby shall be deemed to be incorporated by reference in this prospectus and to be a part of this prospectus on the date of filing of the documents. Any statement incorporated in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document which also is, or is deemed to be, incorporated by reference in this prospectus modifies or supersedes the statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus or the registration statement of which it is a part.

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This prospectus incorporates documents by reference with respect to Ionatron that are not presented herein or delivered herewith. These documents are available without charge to any person, including any beneficial owner of our securities, to whom this prospectus is delivered, upon written or oral request to Corporate Secretary, Ionatron, Inc., 3590 East Columbia Street, Tucson, Arizona 85714, telephone: (520) 628-7415.

We have not authorized anyone else to provide you with information different from that contained or incorporated by reference in this prospectus. This prospectus is not an offer to sell nor is it a solicitation of an offer to buy any security in any jurisdiction where the offer or sale is not permitted. Neither the delivery of this prospectus nor any sale made under this prospectus shall, under any circumstances, imply that there has been no change in our affairs since the date of this prospectus or that the information contained in this prospectus or incorporated by reference herein is correct as of any time subsequent to its date.

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We have not authorized any dealer, sales person or any other person to give any information or to represent anything not contained in this prospectus. You must not rely on any unauthorized information. This prospectus does not offer to sell or buy any securities in any jurisdiction where it is unlawful.

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution*.

The following are the estimated expenses of the issuance and distribution of the securities being registered, all of which will be paid by the Registrant:

SEC registration fee.....	\$4,524.07
Legal fees and expenses.....	20,000
Accounting fees and expenses.....	10,000
Miscellaneous.....	15,475.93

Total.....	\$50,000.00
	=====

* All amounts are estimated except the first item.

Item 15. Indemnification of Directors and Officers.

Sections 145 of the General Corporation Law of the State of Delaware provides for the indemnification of officers and directors under certain circumstances against expenses incurred in successfully defending against a claim and authorizes Delaware corporations to indemnify their officers and directors under certain circumstances against expenses and liabilities incurred in legal proceedings involving such persons because of their being or having been an officer or director.

Section 102(b) of the Delaware General Corporation Law permits a corporation, by so providing in its certificate of incorporation, to eliminate or limit director's liability to the corporation and its stockholders for monetary damages arising out of certain alleged breaches of their fiduciary duty. Section 102(b)(7) provides that no such limitation of liability may affect a director's liability with respect to any of the following: (i) breaches of the director's duty of loyalty to the corporation or its stockholders; (ii) acts or omissions not made in good faith or which involve intentional misconduct of knowing violations of law; (iii) liability for dividends paid or stock repurchased or redeemed in violation of the Delaware General Corporation Law; or (iv) any transaction from which the director derived an improper personal benefit. Section 102(b)(7) does not authorize any limitation on the ability of the corporation or its stockholders to obtain injunctive relief, specific performance or other equitable relief against directors.

Article Ninth of the Registrant's Certificate of Incorporation and Article XVIII of the Registrant's By-laws provide that all persons who the registrant is

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empowered to indemnify pursuant to the provisions of Section 145 of the General Corporation Law of the State of Delaware (or any similar provision or provisions of applicable law at the time in effect), shall be indemnified by the Registrant to the full extent permitted thereby. The foregoing right of indemnification shall not be deemed to be exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors, or otherwise.

Article Tenth of the Registrant's Certificate of Incorporation provides that no director of the Registrant shall be personally liable to the Registrant or its stockholders for any monetary damages for breaches of fiduciary duty as a director, provided that this provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the registrant or its stockholders; (ii) for acts or omissions in good faith or which involve intentional misconduct or a knowing violation of law; (iii) under Section 174 of the General Corporation Law of the State of Delaware; or (iv) for any transaction from which the director derived an improper personal benefit.

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Item 16. Exhibits

(a) Exhibits

Exhibit Number	Description
-----	-----
5.1	Opinion of Blank Rome LLP as to the legality of the securities being registered
23.1	Consent of BDO Seidman LLP
23.3	Consent of Blank Rome LLP, included in opinion filed as Exhibit 5.1
24	Power of Attorney, included in the signature page of this Registration Statement

* Previously filed

Item 17. Undertakings.

(a) The undersigned Registrant hereby undertakes to:

(1) File, during any period in which it offers or sells securities, a post-effective amendment to this registration statement to:

(i) Include any prospectus required by Section 10(a)(3) of the Securities Act.

(ii) Reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the

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"Calculation of Registration Fee" table in the effective registration statement.

(iii) Include any additional or changed material information on the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining liability under the Securities Act, each post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and offering 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 that remain unsold at the termination of the offering.

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(b) Insofar as indemnification for liabilities arising under the Securities Act 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 Securities 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 whether such indemnification by it is against public policy as expressed in the Securities 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, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements of filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, in the City of Tucson, State of Arizona, on the 29th day of November 2005.

IONATRON, INC.

By: /s/Thomas C. Dearmin

Thomas C. Dearmin

Chief Executive Officer and President

Each person whose signature appears below hereby authorizes each of Thomas C. Dearmin and Stephen A. McCommon or either of them as his true and lawful attorney-in-fact with full power of substitution to execute in the name and on behalf of each person, individually and in each capacity stated below, and to

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file, any and all amendments to this Registration Statement, including any and all post-effective amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-3 was signed by the following persons in the capacities and on the dates indicated:

Signature -----	Title -----
/s/ Robert Howard ----- Robert Howard	Chairman and Director
/s/ Thomas C. Dearmin ----- Thomas C. Dearmin	Chief Executive Officer, President, Chief Financial Officer and Director (principal executive and financial officer)
/s/ Stephen McCommon ----- Stephen McCommon	Vice President of Finance and Chief Accounting Officer (principal accounting officer)
/s/ George P. Farley ----- George P. Farley	Director
/s/ James K. Harlan ----- James K. Harlan	Director
/s/ David C. Hurley ----- David C. Hurley	Director
/s/ Thomas W. Steffens ----- Rear Admiral Thomas W. Steffens	Director

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