AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON SEPTEMBER 22, 1999

REGISTRATION NO. 333-83067

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SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

AMENDMENT NO. 1

TO

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

INTEGRATED SURGICAL SYSTEMS, INC.
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE	1850 RESEARCH PARK DRIVE	60-0232575
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	DAVIS, CALIFORNIA 95616-4884 TELEPHONE: (530) 792-2600 TELECOPIER: (530) 792-2690	(I.R.S. EMPLOYER IDENTIFICATION NO.)

(ADDRESS AND TELEPHONE NUMBER OF PRINCIPAL EXECUTIVE OFFICES)

MARK W. WINN
CHIEF FINANCIAL OFFICER
INTEGRATED SURGICAL SYSTEMS, INC.
1850 RESEARCH PARK DRIVE
DAVIS, CALIFORNIA 95616-4884
TELEPHONE: (530) 792-2600
TELECOPIER: (530) 792-2690
(NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF AGENT FOR SERVICE)

A COPY OF ALL COMMUNICATIONS, INCLUDING COMMUNICATIONS SENT TO THE AGENT FOR SERVICE SHOULD BE SENT TO:

JACK BECKER, ESQ.
SNOW BECKER KRAUSS P.C.
605 THIRD AVENUE
NEW YORK, N.Y. 10158-0125
TELEPHONE: (212) 687-3860
TELECOPIER: (212) 949-7052

APPROXIMATE DATE OF PROPOSED SALE TO THE PUBLIC: As soon as practicable 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 or 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. [ ]

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CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SECURITY(1)	PROPOSED MAXIMUM OFFERING PRICE(1)	AMOUNT OF REGISTRATION FEE
Common Stock, $.01 par value.....	2,121,635(2)	$4.125(3)	$8,751,744.38	$2,432.98

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(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457 promulgated under the Securities Act of 1933.

(2) Represents shares to be sold by the selling securityholders named herein, including

- up to 750,000 shares that may be acquired upon conversion of the Registrant's series C convertible stock, at an assumed conversion price of $1.00 per share.

- up to 1,333,333 shares that may be acquired upon conversion of the Registrant's series D convertible preferred stock, at an assumed conversion price of $1.50 per share,

- 34,375 shares that may be acquired upon exercise of outstanding warrants.

- 3,927 shares previously acquired.

Also includes an indeterminate number of shares that the selling securityholders may acquire as a result of a stock split, stock dividend or similar transaction involving the common stock pursuant to the antidilution provisions of the series C and series D convertible stock and the warrants. Does not include additional shares that may be acquired by the selling securityholders upon conversion of the series C and series D convertible preferred stock attributable to the operation of the conversion price formula set forth in the certificate of designations for those series due to a decline in the market price of the common stock as a result of which the conversion price is less than the assumed conversion prices set forth above.

(3) Calculated solely for the purpose of determining the registration fee pursuant to rule 457(c) based upon the closing price of the common stock on The Nasdaq SmallCap Market on July 9, 1999.

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, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

PRELIMINARY PROSPECTUS DATED SEPTEMBER 22, 1999

INTEGRATED SURGICAL SYSTEMS, INC.

COMMON STOCK

The selling securityholders named in this prospectus are offering and selling up to 2,083,333 shares of our common stock that they may acquire upon conversion of our series C and series D preferred stock and 34,375 shares they may acquire upon exercise of warrants.

The common stock is quoted on The Nasdaq SmallCap Market under the symbol "RDOC", and is listed on The Pacific Exchange Inc. under the symbol "ROB". The common stock also has been admitted for trading on the European Association of Securities Dealers' Automated Quotation system under the symbol "RDOC".

THE COMMON STOCK IS A SPECULATIVE INVESTMENT AND INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD READ THE DESCRIPTION OF CERTAIN RISKS UNDER THE CAPTION "RISK FACTORS" COMMENCING ON PAGE 2 BEFORE PURCHASING THE COMMON STOCK.

Our executive offices are at 1850 Research Park Drive, Davis, California 95616-4884, and our telephone number is 530-792-2600.

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

THE DATE OF THIS PROSPECTUS IS , 1999

INFORMATION CONTAINED IN THIS PROSPECTUS IS SUBJECT TO COMPLETION OR AMENDMENT. 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 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 REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY STATE.

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This prospectus is part of a registration statement we filed with the SEC. You should rely only on the information or representations provided in this prospectus. We have not authorized anyone to provide you with different information. The common stock will not be offered in any state where an offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the cover of this prospectus.

RISK FACTORS

WE HAVE A HISTORY OF OPERATING LOSSES AND THESE LOSSES MAY CONTINUE.

We have experienced significant losses since we began operations. We incurred net losses of approximately $10.3 million for the year ended December 31, 1998 and approximately $4.5 million for the year ended December 31, 1997 and a net loss of approximately $4.7 million for the six months ended June 30, 1999 as compared to a net loss of approximately $4.5 million for the six months ended June 30, 1998. As a result of these losses, we had an accumulated deficit of approximately $39.5 million as of June 30, 1999. We will continue to incur losses until such time, if ever, as we derive significant revenues from the sale of our products.

OUR POTENTIAL FUTURE SUCCESS AND FINANCIAL PERFORMANCE WILL DEPEND ALMOST ENTIRELY ON OUR ABILITY TO SUCCESSFULLY MARKET THE ROBODOC SYSTEM.

For the near term, we expect to derive most of our revenues from sales of the ROBODOC System. Accordingly, our potential future success and financial performance will depend almost entirely on our ability to successfully market the ROBODOC System. To successfully market the ROBODOC System, we must commit substantial marketing efforts, develop an effective sales and marketing organization, and expend significant funds to inform potential customers, including hospitals and physicians, of the distinctive characteristics and advantages of using the ROBODOC System instead of traditional surgical tools and procedures. Since the ROBODOC System employs innovative technology, rather than being an improvement of existing technology, and represents a substantial capital expenditure, we expect to encounter resistance to change, which we must overcome if the ROBODOC System is to achieve significant market acceptance. Furthermore, our ability to market the ROBODOC System in the United States is dependent upon approval by the U.S. Food and Drug Administration. We cannot give you any assurance that we will obtain FDA approval to market the ROBODOC System in the United States, or that the ROBODOC System will achieve significant market acceptance in the United States, Europe and other foreign markets to generate sufficient revenues to become profitable.

ALTERNATIVES TO OUR PRODUCTS MAY AFFECT OUR POTENTIAL FUTURE SUCCESS.

The principal competition for the ROBODOC System is manual surgery performed by orthopaedic surgeons, using surgical power tools and manual devices. The providers of these instruments are the major orthopaedic companies, which include Howmedica, Inc. (a subsidiary of Stryker Corporation), located in New York; Zimmer, Inc. (a subsidiary of Bristol-Myers Squibb Company), located in Indiana; Johnson & Johnson Orthopaedics, Inc. (a subsidiary of Johnson & Johnson), located in New Jersey; DePuy, Inc. (a subsidiary of Johnson & Johnson) located in Indiana; Biomet, Inc., located in Indiana; and Osteonics, Inc. (a subsidiary of the Stryker Corporation), located in New Jersey.

Orto Maquet, a German manufacturer and major supplier of operating tables to hospitals and physicians in Europe, has entered the market with a device intended to compete with the ROBODOC System. Orto Maquet's system incorporates pin-based registration and requires a second surgical procedure to place pins in the patient's thigh bone prior to performing hip replacement surgery. Although Orto Maquet offers a pre-surgical planning station, only our ROBODOC System offers enhancements that allow the surgeon to plan and perform revision hip surgery, the replacement of a previous hip implant. Orto Maquet has relationships with hospitals and physicians throughout Europe as a supplier of operating tables and has greater financial, marketing and distribution resources than us. Several of our potential customers in Germany have decided to purchase the Orto Maquet system instead of the ROBODOC System due to their preference for doing business with a German company.

The principal competition for the NeuroMate System are frame-based and frameless navigators, which are manually operated. Approximately twenty navigator models have been introduced, including those by Radionics, Sofamor-Danek and Ohio Medical Surgical products, all located in the United States; Elekta,

located in Sweden; and Fischer Leibingher and Brain Lab, both located in Germany. In general, there are companies in the medical products industry capable of developing and marketing computer-controlled robotic systems for surgical applications, many of whom have significantly greater financial, technical, manufacturing, marketing and distribution resources than us, and have established reputations in the medical device industry. Furthermore, we cannot give you any assurance that IBM or the University of California, which developed the technology embodied in the ROBODOC System and hold patents relating thereto, will not enter the market or license the technology to other companies.

We cannot give you any assurance that future competition will not have a material adverse effect on our business. The cost of our systems represents a significant capital expenditure for a customer and accordingly may discourage purchases by certain customers.

WE NEED BUT HAVE NOT YET OBTAINED APPROVAL OF THE U.S. FOOD AND DRUG ADMINISTRATION TO MARKET THE ROBODOC SYSTEM IN THE UNITED STATES.

Before a new medical device can be introduced into the U.S. market, the manufacturer must obtain FDA permission to market through either the 510(k) pre-market notification process for medical devices which are substantially similar to other approved medical devices or the costlier, lengthier and less certain pre-market approval application process. Following a pre-filing meeting with representatives of the FDA in early 1998, we stated that we intended to file our pre-market approval application to market the ROBODOC System with the FDA in the second quarter of 1998. As a result of further discussions with representatives of the FDA as part of the pre-submission review process (which process is intended to expedite the FDA's formal pre-market approval process), we have deferred the filing of our pre-market approval application with the FDA so that we may incorporate our DigiMatch Single Surgery System, and possibly other technical developments, as part of our pre-market approval application. We believe, based upon our discussions with representatives of the FDA, that the incorporation of the DigiMatch Single Surgery System will enhance our prospects for obtaining FDA approval. However, we cannot give you any assurance as to when or if the FDA will grant pre-market approval for the ROBODOC System or that such approval, if obtained, will not include unfavorable limitations or restrictions.

In order to obtain FDA clearance or approval, we must demonstrate that the ROBODOC System is safe and effective, and we may be required to show a clinical benefit to patients. We believe that a reduced incidence of intraoperative fractures with the ROBODOC System compared to conventional total hip replacement surgery would offer an important benefit. The number of patients enrolled in our U.S. clinical study is less than the 300 patients (150 ROBODOC System; 150 control group) we initially requested to study in our investigational device exemption application to the FDA. Nonetheless, over 4,000 primary surgeries have been performed with the ROBODOC System in the U.S. clinical trial and the European treatment population without a single reported intraoperative fracture. Since the observed fracture rate in the control group in the U.S. clinical trial was lower than anticipated, the data from this study are not sufficient to establish a statistically significant reduction in intraoperative fractures compared to the control group. Nevertheless, the data from both the U.S. and the European group of patients suggest that the ROBODOC System reduces intraoperative fractures when compared to the fracture rate of approximately 3 to 28 percent for conventional surgery reported in the scientific and medical literature. However, we cannot give you any assurance that the FDA will agree that the ROBODOC System offers a clinically significant reduction in intraoperative fractures, in the absence of a controlled trial demonstrating such a reduction, or that such a reduction is of clinical benefit to patients.

The FDA has advised us that it believes long-term functional assessments are the primary endpoints for evaluating the safety and effectiveness of the ROBODOC System. Our preliminary review of the functional assessment data from the U.S. clinical trial shows equivalence between the ROBODOC System and conventional surgery. We believe that achieving better implant fit and alignment in the femoral cavity are significant factors in the success of cementless total hip replacement surgery, although the FDA has questioned whether fit is an appropriate endpoint and has not addressed alignment.

Our most recent statistical analysis of fit and alignment parameters from 3-month radiographs showed that the ROBODOC System surgeries produced better fit and alignment when compared to conventional surgeries. We believe a more accurate fit of the prosthesis reflects the implant manufacturers' design goals for implant cavity preparation. We also reviewed 24-month radiographs evaluating prosthesis stability. We cannot give you any assurance that the FDA will accept our data that demonstrates the ROBODOC System achieves better implant fit, alignment and stability, or that the FDA will agree that better fit and alignment are significant surgical endpoints. In addition, we cannot give you any assurance that the FDA will agree that the greater surgery time and blood loss associated with the ROBODOC System does not pose a significant safety concern or create an unfavorable risk/benefit ratio. Further, we cannot give you any assurance that the FDA will not require us to obtain additional clinical data from a randomized, controlled trial to resolve any concern about the risk/benefit ratio offered by the ROBODOC System. If we must obtain such additional data, the FDA review process could be prolonged by several years.

WE MAY NOT BE ABLE TO COMPLY WITH QUALITY SYSTEM AND OTHER FDA REPORTING AND INSPECTION REQUIREMENTS.

Assuming we obtain the necessary FDA approvals and clearances for our products, in order to maintain such approvals and clearances we must, among other things, register our establishment and list our devices with the FDA and with certain state agencies, maintain extensive records, report any adverse experiences on the use of our products and submit to periodic inspections by the FDA and certain state agencies. The Food, Drug, and Cosmetic Act also requires devices to be manufactured in accordance with the quality system regulation, which sets forth good manufacturing practices requirements with respect to manufacturing and quality assurance activities. The quality system regulation revises the previous good manufacturing practices regulation and imposes certain enhanced requirements that are likely to increase the cost of compliance, including design controls.

WE MAY NOT BE ABLE TO OBTAIN REGULATORY APPROVALS NEEDED TO SELL OUR PRODUCTS IN FOREIGN MARKETS.

The introduction of our products in foreign markets has subjected and will continue to subject us to foreign regulatory clearances, which may be unpredictable and uncertain, and which may impose substantial additional costs and burdens. Many countries also impose product standards, packaging requirements, labeling requirements and import restrictions on devices. We cannot give you any assurance that any of our products will receive further approvals or clearances, if required on a timely basis, or at all.

OUR ABILITY TO COMPETE SUCCESSFULLY MAY DEPEND, IN PART, ON OUR ABILITY TO OBTAIN AND PROTECT PATENTS, PROTECT TRADE SECRETS AND OPERATE WITHOUT INFRINGING THE PROPRIETARY RIGHTS OF OTHERS.

Certain robotic medical technology underlying our products is the subject of a United States patent issued to IBM, which IBM has agreed not to enforce against the manufacture and sale of our products. We have been issued four U.S. patents and filed seven patent applications covering various aspects of our technology.

Our U.S. patents include

- Computer assisted software system for planning and performing hip revision surgery
- Computer assisted system and method for creating cavities in the femur that will accept a prosthesis
- Computer system and method for creating a pre-operative surgical plan for hip replacement surgery
- Method for orienting real patient anatomy to a digital image of the patient's anatomy

We cannot give you any assurance that our pending or future patent applications will mature into issued patents, or that we will continue to develop our own patentable technologies. Further, we cannot give you any assurance that any patents that may be issued to us effectively protect our technology or provide a

competitive advantage for our products or will not be challenged, invalidated, or circumvented in the future. In addition, we cannot give you any assurance that competitors, many of which have substantially more resources than us and have made substantial investments in competing technologies, will not obtain patents that will prevent, limit or interfere with our ability to make, use or sell our products either in the United States or internationally.

The medical device industry has been characterized by substantial competition and litigation regarding patent and other proprietary rights. We intend to vigorously protect and defend our patents and other proprietary rights relating to our proprietary technology. Litigation alleging infringement claims against us (with or without merit), or instituted by us to enforce patents and to protect trade secrets or know-how owned by us or to determine the enforceability, scope and validity of the proprietary rights of others, is costly and time consuming. If any relevant claims of third-party patents are upheld as valid and enforceable in any litigation or administrative proceedings, we could be prevented from practicing the subject matter claimed in such patents, or could be required to obtain licenses from the patent owners of each patent, or to redesign our products or processes to avoid infringement. We cannot give you any assurance that such licenses would be available or, if available, would be available on terms acceptable to us or that we would be successful in any attempt to redesign our products or processes to avoid infringement. Accordingly, an adverse determination in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing and selling our products, which would have a material adverse effect on our business, financial condition and results of operations.

OUR PRODUCTION EXPERIENCE IS LIMITED.

Our success will depends in part on our ability to assemble our products in a timely, cost-effective manner and in compliance with good manufacturing practices, and manufacturing requirements of other countries, including the International Standards Organization 9000 standards and other regulatory requirements. The assembly of our products is a complex operation involving a number of separate processes and components. Our production activities to date have consisted primarily of assembling limited quantities of systems for use in clinical trials and systems for commercial sale. We do not have experience in assembling our products in larger commercial quantities. Furthermore, as a condition to receipt of pre-market approval, our facilities, procedures and practices will be subject to pre-approval and ongoing good manufacturing practices inspections by the FDA.

Manufacturers often encounter difficulties in scaling up manufacturing of new products, including problems involving product yields, quality control and assurance, component and service availability, adequacy of control policies and procedures, lack of qualified personnel, compliance with FDA regulations, and the need for further FDA approval of new manufacturing processes and facilities. We cannot give you any assurance that production yields, costs or quality will not be adversely affected as we seek to increase production, and any such adverse effect could have a material adverse effect on our business, financial condition and results of operations.

WE ARE DEPENDENT ON OUR SUPPLIER OF ROBOTS.

Although we have multiple sources for most of our components, parts and assemblies used in the ROBODOC and NeuroMate Systems, we are dependent on Sankyo Seiki of Japan for the ROBODOC System robot arm and Audemars-Piguet of Switzerland for the supply of the customized NeuroMate robot. Although we believe we can obtain a robot arm for either the ROBODOC System or the NeuroMate System from other suppliers, with appropriate modifications and engineering effort, we cannot give you any assurance that delays resulting from the required modifications or engineering effort to adapt alternative components would not have a material adverse effect on our business, financial condition and results of operations.

WE ARE DEPENDENT ON FOREIGN SALES.

Since we commenced operations, substantially all of our sales have been to customers in Germany, Austria, France and Japan. We believe that until such time, if ever, as we receive approval from the FDA to market the ROBODOC System in the United States, substantially all of our sales for the ROBODOC System will be derived from customers in foreign markets. Foreign sales are subject to certain risks, including economic or political instability, shipping delays, fluctuations in foreign currency exchange rates, changes in regulatory requirements, custom duties and export quotas and other trade restrictions, any of which could have a material adverse effect on our business. To date, payment for substantially all ROBODOC Systems in Europe has been fixed in U.S. Dollars. However, we cannot give you any assurance that in the future customers will be willing to make payment for our products in U.S. Dollars. If the U.S. Dollar strengthens substantially against the foreign currency of a country in which we sell our products, the cost of purchasing our products in U.S. Dollars would increase and may inhibit purchases of our products by customers in that country. We are unable to predict the nature of future changes in foreign markets or the effect, if any, they might have on us.

LENGTHY SALES CYCLE MAY CAUSE US TO RECOGNIZE THE SALES PRICE OF A SYSTEM IN A SUBSEQUENT FISCAL QUARTER TO THE FISCAL QUARTER IN WHICH WE INCURRED RELATED MARKETING AND SALES EXPENSES.

Since the purchase of a ROBODOC System or NeuroMate System represents a significant capital expenditure for a customer, the placement of orders may be delayed due to customers' internal procedures to approve large capital expenditures. We anticipate that the period between initial contact of a customer for a system and submission of a purchase order by that customer could be as long as 9 to 12 months. Furthermore, the current lead time required by the supplier of the robot for either the ROBODOC System or the NeuroMate System is approximately four months after receipt of the order. We may be required to expend significant cash resources to fund our operations until the purchase price is paid. Accordingly, we may not recognize the sales price of a system until a fiscal quarter subsequent to the fiscal quarter in which we incurred marketing and sales expenses associated with an order.

WE MAY NEED ADDITIONAL FINANCING FOR OUR OPERATIONS.

Our available cash resources, together with anticipated cash flows from operations, may not be sufficient to continue our operations at current levels without additional financing. We cannot give you any assurance that such financing, if required, will be available on acceptable terms, if at all. If we are unable to obtain such additional financing on favorable terms, we may have to reduce or curtail certain activities.

WE ARE SUBJECT TO PRODUCT LIABILITY CLAIMS.

The manufacture and sale of medical products exposes us to the risk of significant damages from product liability claims. Although we maintain product liability insurance against product liability claims in the amount of $5 million per occurrence and $5 million in aggregate, we cannot give you any assurance that the coverage limits of our insurance policies will be adequate or that such insurance can be maintained at acceptable costs. Although we have not experienced any product liability claims to date, a successful claim brought against us in excess of our insurance coverage could have a materially adverse effect on our business, financial condition and results of operations.

WE MAY NOT BE ABLE TO RETAIN OUR KEY PERSONNEL OR HIRE THE ADDITIONAL PERSONNEL WE NEED TO SUCCEED.

Our growth and future success also will depend in large part on the continued contributions of key technical and senior management personnel, as well as our ability to attract, motivate and retain highly qualified personnel generally and, in particular, trained and experienced professionals capable of developing, selling and installing the Systems and training surgeons in their use. Competition for such personnel is intense, and we cannot give you any assurance that we will be successful in hiring, motivating or retaining such qualified personnel. None of our executive or key technical personnel is employed pursuant to an employment agreement. The loss of the services of senior management or key technical personnel, or the

inability to hire or retain qualified personnel, could have a material adverse effect on our business, financial condition and results of operations.

CONVERSION OF OUR PREFERRED STOCK AND SUBSEQUENT PUBLIC SALE OF OUR COMMON STOCK WHILE ITS MARKET PRICE IS DECLINING MAY RESULT IN FURTHER DECREASES IN ITS PRICE.

As of August 15, 1999, we had outstanding 5,940 shares of convertible preferred stock. Each series of preferred stock has a stated value of $1,000 per share and is convertible into common stock at a conversion price equal to 85% of the lowest sale price of the common stock on the Nasdaq SmallCap Market over the five trading days preceding the date of conversion. The number of shares of common stock that may be acquired upon conversion is determined by dividing the stated value of the number of shares of preferred stock to be converted by the conversion price. The maximum conversion price for each series of preferred stock remaining outstanding is as follows: Series B -- $3.063; Series C -- $2.484; Series D -- $3.938 and Series E -- $5.063. There is no minimum conversion price for any series of preferred stock. Consequently, there is no limit on the number of shares of Common Stock that may be issued upon conversion. At an assumed conversion price of $2.50 per share, 2,376,000 shares of common stock, or approximately 26.6% of the 8,928,513 shares outstanding as of August 20, 1999, may be acquired by the holders of the 5,940 shares of preferred stock outstanding as of that date. The number of shares of common stock that may be acquired based upon assumed conversion prices of $3.00, $2.00 and $1.00, is as follows:

SERIES OF PREFERRED STOCK	NUMBER OF SHARES OF PREFERRED STOCK OUTSTANDING AT AUGUST 15, 1999	NUMBER OF SHARES OF COMMON STOCK THAT MAY BE ACQUIRED UPON CONVERSION OF PREFERRED STOCK AT ASSUMED CONVERSION PRICE OF		
		$3.00	$2.00	$1.00
A	None	--	--	--
B	190	63,333	95,000	190,000
C	750	250,000	375,000	750,000
D	2,000	666,667	1,000,000	2,000,000
E	3,000	1,000,000	1,500,000	3,000,000
Total	5,940	1,980,000	2,970,000	5,940,000

The number of shares of common stock that the holders of the preferred stock may acquire upon conversion will increase as the market price of the common stock declines below the assumed prices in the above table, and our existing stockholders will experience substantial dilution in their percentage ownership of our common stock. Furthermore, the holders of the preferred stock may sell at market price the shares of common stock they have acquired upon conversion at a 15% discount to prevailing market prices concurrently with, or shortly after, conversion, realizing a profit equal to the difference between the market price and the discounted conversion price. The holders of the preferred stock also could engage in short sales of our common stock, after delivering a notice of conversion to us, which could contribute to a decline in the market price of the common stock and give them the opportunity to profit from that decrease by covering their short position with shares acquired upon conversion at a 15% discount to the prevailing market price. The conversion of the preferred stock and subsequent sale of the common stock acquired upon conversion during periods when the market price of the common stock declines, or the possibility of such conversions and sales, may exacerbate the decline or impede increases in the market price of the common stock.

OTHER ISSUANCES OF PREFERRED STOCK COULD ADVERSELY AFFECT EXISTING HOLDERS OF OUR COMMON STOCK.

Under our certificate of incorporation, our Board of Directors may, without further stockholder approval, issue up to an additional 989,730 shares of

preferred stock with dividend, liquidation, conversion, voting or other rights that could adversely affect the voting power or other rights of the holders of common stock. We could use new classes of preferred stock as a method of discouraging, delaying or preventing a change in persons that control us. In particular, the terms of the preferred stock could effectively restrict our

ability to consummate a merger, reorganization, sale of all or substantially all of our assets, liquidation or other extraordinary corporate transaction without the approval of the holders of the preferred stock. We could also create a class of preferred stock with rights and preferences similar to those of our outstanding convertible preferred stock, which could result in substantial dilution to holders of our common stock or adversely affect its market price.

CONVERSION OF OUR OUTSTANDING PREFERRED STOCK AND THE EXERCISE OF OUR OUTSTANDING WARRANTS AND STOCK OPTIONS AND SUBSEQUENT PUBLIC SALE OF OUR COMMON STOCK WILL RESULT IN SUBSTANTIAL DILUTION TO EXISTING STOCKHOLDERS.

As of August 20, 1999, we had outstanding 8,928,513 shares of common stock. An additional

- 2,376,000 shares may be acquired upon conversion of our outstanding preferred stock at an assumed conversion price of $2.50 per share

- 5,385,174 shares may be acquired upon exercise of outstanding warrants

- 1,324,570 shares may be acquired upon exercise of outstanding stock options.

If all of the outstanding preferred stock was converted at an assumed conversion price of $2.50 per share, and all outstanding warrants and stock options were exercised, the number of outstanding shares of common stock would increase by 9,085,744 shares, representing approximately 102% of the outstanding common stock as of August 20, 1999. If this occurs, existing stockholders will experience substantial dilution in their percentage ownership of our common stock.

ADDITIONAL FINANCING FOR OUR OPERATIONS COULD ADVERSELY AFFECT HOLDERS OF OUR COMMON STOCK.

We are seeking additional financing for our operations. To obtain that financing, we may issue common stock or debt or equity securities convertible into shares of common stock. Any additional financing may result in substantial dilution to current holders of our common stock.

SALES OF SUBSTANTIAL AMOUNTS OF OUR COMMON STOCK, OR THE POSSIBILITY OF SUCH SALES, MAY HAVE AN ADVERSE EFFECT ON THE MARKET PRICE OF OUR COMMON STOCK AND IMPAIR OUR ABILITY TO RAISE CAPITAL THROUGH AN OFFERING OF EQUITY SECURITIES IN THE FUTURE.

As of August 20, 1999, there were 8,928,513 shares of common stock outstanding. Except for 1,039,792 shares of common stock (representing approximately 11.65% of the outstanding common stock) owned by EJ Financial Investments V, L.P., which may be sold in accordance with the volume limitations of Rule 144, substantially all of the outstanding shares of common stock are transferable without restriction under the Securities Act. In addition,

- An indeterminate number of shares may be acquired upon conversion of our outstanding convertible preferred stock. As of August 20, 1999, we had outstanding the following shares of convertible preferred stock:

series B:	190
series C:	750
series D:	2,000
series E:	3,000

Each series of preferred stock has a stated value of $1,000 per share and is convertible into common stock at a conversion price equal to 85% of the lowest sale price of the common stock on the Nasdaq SmallCap Market over the five trading days preceding the date of conversion. The number of shares of common stock that may be acquired upon conversion is determined by

dividing the stated value of the number of shares of preferred stock to be converted by the conversion price. The maximum conversion price for each series is:

series B:	$3.063
series C:	$2.484
series D:	$3.938
series E:	$5.063

There is no minimum conversion price. At an assumed conversion price of $2.50 per share, holders of our outstanding convertible stock could acquire 2,376,000 shares of common stock, or approximately 26.6% of our outstanding shares. The number of shares that may be acquired upon conversion of the preferred stock will increase if the market price of the common stock declines below the assumed conversion price.

- 2,274,066 shares may be acquired upon exercise of warrants owned by IBM at exercise prices ranging from $.01 to $.07.

- 2,190,209 shares may be acquired upon exercise of warrants issued in our initial public offering at an exercise price of $4.60 per share.

- 920,899 shares may be acquired upon exercise of warrants having exercise prices ranging from $1.83 to $6.16 per share.

- 1,324,570 shares may be acquired upon exercise of stock options granted pursuant to our stock option plans at exercise prices ranging from $.07 to $8.63 per share.

Substantially all of such shares, when issued, may be immediately resold in the public market pursuant to effective registration statements under the Securities Act or pursuant to Rule 144.

We have granted registration rights to:

- holders of our convertible preferred stock with respect to the shares of common stock they may acquire upon conversion.

- IBM, EJ Financial Investments V,L.P. and certain other institutional investors owning or having the right to acquire 3,616,465 shares of common stock.

- Holders of warrants to purchase 200,480 shares of common stock issued in connection with our European offering in November 1997 have demand and piggyback registration rights for those shares.

- The holders of warrants to purchase 83,229 shares of common stock have piggyback registration rights for those shares.

If our securityholders sell publicly a substantial number of shares issued on

the exercise of outstanding options and warrants or on the conversion of our convertible preferred stock, then the market price of our common stock may decline. Public perception that those sales will occur may also adversely affect the price of our common stock. Furthermore, the existence of securities of this type may exert downward pressure on an issuer's stock price. A decline in the price of our common stock may also impair our ability to raise capital through the sale of equity securities.

IF WE CANNOT SATISFY NASDAQ'S MAINTENANCE REQUIREMENTS, IT MAY DELIST OUR COMMON STOCK FROM ITS SMALLCAP MARKET.

Our common stock is quoted on the Nasdaq SmallCap Market. To continue to be listed, we are required to maintain net tangible assets of $2,000,000 and our common stock must maintain a minimum bid price of $1.00 per share. We may not be able to continue to satisfy those requirements.

The conversion of our convertible preferred stock may have consequences that could cause Nasdaq to delist our common stock. The conversion of our preferred stock and resale of the common stock acquired

upon conversion, or the possibility of the conversion of our preferred stock and resale of our common stock, may depress or inhibit increases in the market price of our common stock. As a result, the minimum bid price for our common stock may decline below $1.00. Nasdaq also may delist our common stock if it deems it necessary to protect investors and the public interest. If Nasdaq determines that the returns on our convertible preferred stock are excessive compared with the returns received by the holders of our common stock, and those excess returns were egregious, Nasdaq could delist our common stock.

If we are unable to satisfy Nasdaq's maintenance requirements, our common stock may be delisted. If we are delisted and we are not then listed or do not qualify for a listing on a stock exchange, our common stock would be traded in the over-the-counter market and quoted in the NASD's "Electronic Bulletin Board" or the "pink sheets." Consequently, it may be more difficult for an investor to obtain price quotations for our common stock or to sell it.

IF OUR COMMON STOCK IS DELISTED, IT MAY BECOME SUBJECT TO THE SEC'S "PENNY STOCK" RULES AND MORE DIFFICULT TO SELL.

SEC rules require brokers to provide information to purchasers of securities traded at less than $5.00 and not traded on a national securities exchange or quoted on the Nasdaq Stock Market. If our common stock becomes a "penny stock" that is not exempt from the SEC rules, these disclosure requirements may have the effect of reducing trading activity in our common stock and make it more difficult for investors to sell. The rules require a broker-dealer to deliver a standardized risk disclosure document prepared by the SEC that provides information about penny stocks and the nature and level of risks in the penny market. The broker must also give bid and offer quotations and broker and salesperson compensation information to the customer orally or in writing before or with his confirmation. The SEC rules also require a broker to make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction before a transaction in a penny stock.

FORWARD LOOKING STATEMENTS

Some of the information in this prospectus and the documents we incorporate by reference may contain forward-looking statements. Such statements can be identified by the use of forward-looking terminology such as "may," "will," "expect," "believe," "intend," "anticipate," "estimate," "continue" or similar words. These statements discuss future expectations, estimate the happening of future events or our financial condition or state other "forward-looking" information. When considering such forward-looking statements, you should keep in mind the risk factors and other cautionary statements in this prospectus and the documents that we incorporate by reference. The risk factors discussed in this prospectus and other factors noted throughout this prospectus, including certain risks and uncertainties, could cause our actual results to differ materially from those contained in any forward-looking statement.

SELLING SECURITYHOLDERS

The table below sets forth the name and address of each selling securityholder, the number of shares of common stock beneficially owned by each selling securityholder as of August 20, 1999, the number of shares that each selling securityholder may offer, and the number of shares of common stock beneficially owned by each selling securityholder upon completion of this offering, assuming all of the shares offered are sold. None of the selling securityholders has, or within the past three years has had, any position, office or other material relationship with us or any of our predecessors or affiliates.

The number of shares listed below as beneficially owned before the offering by each selling securityholder owning series C and series D preferred stock has been computed, without giving effect to the terms of the series C and series D preferred stock, which provide that the number of shares that the selling securityholders may acquire upon conversion may not exceed that number which would render a selling securityholder the beneficial owner of more than five percent of the then issued and outstanding shares of common stock, or result in the issuance of more than an aggregate of 1,503,255 shares upon conversion of the Series C preferred stock or more than an aggregate of 1,706,814 shares upon conversion of the series D preferred stock, on the date that series of preferred stock was issued.

On August 20, 1999, we had 8,928,513 shares of common stock outstanding. For purposes of computing the number and percentage of shares beneficially owned by a selling securityholder on August 20, 1999, any shares which such person has the right to acquire within 60 days after such date are deemed to be outstanding, but those shares are not deemed to be outstanding for the purpose of computing the percentage ownership of any other selling securityholder.

	SHARES OF COMMON STOCK OWNED BEFORE OFFERING(1)		SHARES OF COMMON STOCK OFFERED IN THE OFFERING	SHARES OF COMMON STOCK BENEFICIALLY OWNED AFTER OFFERING	
NAME AND ADDRESS OF SELLING SECURITYHOLDER	NUMBER	PERCENT	NUMBER	NUMBER	PERCENT
Holder of series C and series D preferred stock and warrants:					
The Shaar Fund Ltd.(2) Citro Building, Wickhams Cay, P.O. Box 662, Road Town, Tortola, B.V.I.	1,896,083	17.5%	1,864,583(3)	31,500(4)	*
Holder of Series C preferred stock and warrants:					
AMRO International, S.A.(5) c/o Ultrafinance, Grossmunster Platz 6, Zurich CH 8022	595,625	6.3%	253,125(6)	342,500(7)	3.7%
Holder of shares of Common Stock:					
Trinity Capital Advisors, Inc. 211 Sutter Street, Suite 2000, San Francisco, California 94104	14,640	*	3,927	10,713	*

- ---
* Less than one percent (1%).

1. The information presented in the table does not give effect to the terms of the certificate of designations for the series C and series D preferred stock and the warrants that limit the number of shares that any holder may acquire upon conversion or exercise of these securities to 5.0% of the then issued and outstanding shares of common stock.

2. Shaar Investment Advisory Services N.V. is the investment advisor for The Shaar Fund Ltd. InterCaribbean Services Ltd., a subsidiary of Citco Fund Services, is the sole director of the fund. Luc Hollman, managing director of the advisor, has sole voting and dispositive power with respect to shares owned by The Shaar Fund Ltd.

3. Represents the number of shares that the selling securityholder may acquire upon exercise of warrants to purchase 31,250 shares of common stock and conversion of 500 shares of series C preferred stock at an assumed conversion price of $1.00 per share and 2,000 shares of series D preferred stock at an assumed conversion price of $1.50 per share. The actual conversion price is 85% of the lowest sale price of a share of common stock for the five trading days preceding the date of conversion. The number of shares of common stock that the selling securityholder may acquire upon conversion is equal to the number of shares of preferred stock to be converted times $1,000, the stated value of each share of preferred stock, divided by the conversion price. The maximum conversion price of the series C preferred stock is $2.484 and the maximum conversion price of the series D preferred stock is $3.938. Since there is no minimum conversion price, if the market price of the common stock declines below the assumed conversion price, the number of shares that the selling securityholder may acquire upon conversion will increase. If following a sustained increase in the market price of the common stock sufficient to offset the 15% discount used in computing the conversion price the conversion price is higher than the assumed conversion price, the number of shares that the selling securityholder may acquire will decrease. The number of shares that the selling securityholder may acquire upon conversion of the series C and series D preferred stock at an assumed conversion price of $1.00, $2,00 and $3.00 is:

SERIES OF PREFERRED STOCK	NUMBER OF PREFERRED SHARES	NUMBER OF SHARES OF COMMON STOCK THAT MAY BE ACQUIRED UPON CONVERSION AT AN ASSUMED CONVERSION PRICE OF		
		$ 1.00	$ 2.00	$ 3.00
C	500	500,000	250,000	166,667
D	2,000	2,000,000	1,000,000	666,667
Total	2,500	2,500,000	1,250,000	833,334

4. Represents shares that may be acquired upon exercise of warrants.

5. Hans Ulrich Bachofen and Michael Klee share voting and dispositive power with respect to shares owned by AMRO International, S.A.

6. Represents the number of shares that the selling securityholder may acquire upon exercise of warrants to purchase 3,125 shares of common stock and conversion of 250 shares of series C preferred stock at an assumed conversion price of $1.00 per share. The actual conversion price is 85% of the lowest sale price of a share of common stock for the five trading days preceding the date of conversion. The number of shares of common stock that the selling securityholder may acquire upon conversion is equal to the number of shares of preferred stock to be converted times $1,000, the stated value of each share of preferred stock, divided by the conversion price. The maximum conversion price of the series C preferred stock is $2.484. Since there is no minimum conversion price, if the market price of the common stock declines below the assumed conversion price, the number of shares that the selling securityholder may acquire upon conversion will increase. If following a sustained increase in the market price of the common stock sufficient to offset the 15% discount used in computing the conversion price the conversion price is higher than the assumed conversion price, the number of shares that the selling securityholder may acquire will decrease. If the conversion price is

- $2.00 per share, instead of $1.00 per share, the selling securityholder only may acquire 125,000 shares of common stock

- $3.00 per share, instead of $1.00 per share, the selling securityholder only may acquire 166,667 shares of common stock.

7. Includes 22,500 shares that may be acquired upon exercise of warrants and 320,000 shares that may be acquired upon conversion of the series E preferred stock at an assumed conversion price of $2.50 per share.

We are registering the shares for resale by the selling securityholders in accordance with registration rights granted to the selling securityholders. We will pay the registration and filing fees, printing expenses, listing fees, blue sky fees, if any, and fees and disbursements of our counsel in connection with this offering, but the selling securityholders will pay any underwriting discounts, selling commissions and similar expenses relating to the sale of the shares, as well as the fees and expenses of their counsel. In addition, we have agreed to indemnify the selling securityholders, underwriters who may be selected by the selling securityholders and certain affiliated parties, against certain liabilities, including liabilities under the Securities Act, in connection with the offering. The selling securityholders may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares against certain liabilities, including liabilities under the Securities Act. The selling securityholders have agreed to indemnify us and our directors and officers, as well as any person controlling the company, against certain liabilities, including liabilities under the Securities Act. Insofar as indemnification for liabilities under the Securities Act may be permitted to our directors or officers, or persons controlling the company, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

PLAN OF DISTRIBUTION

The selling securityholders may sell shares from time to time in public transactions, on or off The Nasdaq SmallCap Market, or private transactions, at prevailing market prices or at privately negotiated prices. They may sell their shares in the following types of transactions:

- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- a block trade in which the broker-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;
- purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this prospectus; and
- face-to-face transactions between sellers and purchasers without a broker-dealer.

The selling securityholders also may sell shares that qualify under Section 4(1) of the Securities Act or Rule 144. As used in this prospectus, selling securityholders include donees, pledgees, distributees, transferees and other successors-in-interest of the selling securityholders named in this prospectus.

In effecting sales, brokers or dealers engaged by the selling securityholders may arrange for other brokers or dealers to participate in the resales. The selling securityholders may enter into hedging transactions with broker-dealers, and in connection with those transactions, broker-dealers may engage in short sales of the shares. The selling securityholders also may sell shares short and deliver the shares to close out such short positions, except that the selling securityholders have agreed that they will not enter into any put option or short position with respect to the common stock prior to the date of the delivery of a conversion notice. The selling securityholders also may enter into option or other transactions with broker-dealers which require the delivery to the broker-dealer of the shares, which the broker-dealer may resell under this prospectus. The selling securityholders also may pledge the shares to a broker or dealer and upon a default, the broker or dealer may effect sales of the pledged shares under this prospectus.

Brokers, dealers or agents may receive compensation in the form of commissions, discounts or concessions from selling securityholders in amounts to be negotiated in connection with the sale. The selling securityholders and any participating brokers or dealers may be deemed to be "underwriters" within the

meaning of the Securities Act in connection with such sales and any such commission, discount or concession may be deemed to be underwriting compensation.

Information as to whether underwriters who may be selected by the selling securityholders, or any other broker-dealer, is acting as principal or agent for the selling securityholders, the compensation to be received by them, and the compensation to be received by other broker-dealers, in the event such compensation is in excess of usual and customary commissions, will, to the extent required, be set forth in a supplement to this prospectus. Any dealer or broker participating in any distribution of the shares may be required to deliver a copy of this prospectus, including a prospectus supplement, if any, to any person who purchases any of the shares from or through such dealer or broker.

We have advised the selling securityholders that during such time as they may be engaged in a distribution of the shares they are required to comply with Regulation M promulgated under the Securities Exchange Act. With certain exceptions, Regulation M precludes any selling securityholder, any affiliated purchasers and any broker-dealer or other person who participates in such distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security.

INFORMATION ABOUT INTEGRATED SURGICAL SYSTEMS, INC.

We develop, assemble, market and service image-directed, computer-controlled robotic products for orthopaedic and neurosurgical applications. Our principal orthopaedic product is the ROBODOC(R) Surgical Assistant System, consisting of a computer-controlled surgical robot and our ORTHODOC(R) Presurgical Planner, and our principal neurosurgical product is the NeuroMate System.(TM)

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. You may read and copy any document we file at the Public Reference Room of the SEC at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549 and at the Regional Offices of the SEC at Seven World Trade Center, Suite 1300, New York, New York 10048 and at 500 West Madison Street, Suite 1400, Chicago, Illinois 60661-2511. Please call 1-800-SEC-0330 for further information concerning the Public Reference Room. Our filings also are available to the public from the SEC's website at www.sec.gov. We distribute to our stockholders annual reports containing audited financial statements.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with it, which means that we can disclose important information to you by referring to those documents. The information incorporated by reference is considered to be part of this prospectus, and information we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act until the offering is completed:

1. Annual Report on Form 10-KSB for the fiscal year ended December 31, 1998, including any amendments to that report.

2. Proxy Statement dated March 27, 1999.

3. Quarterly Reports on Form 10-QSB for the fiscal quarters ended March 31, 1999 and June 30, 1999, including any amendments to that report.

4. Current Report on Form 8-K dated April 28, 1999, including any amendments to that report.

5. The description of the common stock contained in our Registration Statement on Form 8-A (File No. 1-12471) under Section 12 of the Securities Exchange Act.

You may request a copy of these filings, at no cost, by writing or calling us at:

INTEGRATED SURGICAL SYSTEMS
1850 Research Park Drive
Davis, California 95616-4884
Attention: Corporate Secretary

Telephone: (530) 792-2600

LEGAL MATTERS

The validity of the shares of common stock offered hereby has been passed upon by Snow Becker Krauss P.C., 605 Third Avenue, New York, New York 10158.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements included in our Annual Report on Form 10-KSB for the year ended December 31, 1998, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The expenses payable by the Company in connection with the issuance and distribution of the securities being registered are estimated below:

SEC registration fee	$ 2,432.98
Listing fees	15,000.00
Legal fees and expenses	10,000.00
Printing expenses	5,000.00
Accounting fees	3,500.00
Miscellaneous	1,067.02
Total	$37,000.00

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Article VI of the Registrant's by-laws provides that a director or officer shall be indemnified against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement (provided such settlement is approved in advance by the Registrant) in connection with certain actions, suits or proceedings, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation -- a "derivative action") if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. A similar standard of care is applicable in the case of derivative actions, except that indemnification only extends to expenses (including attorneys' fees) incurred in connection with the defense or settlement of such an action, except that no person who has been adjudged to be liable to the Registrant shall be entitled to indemnification unless a court determines that despite such adjudication of liability but in view of all of the circumstances of the case, the person seeking indemnification is fairly and reasonably entitled to be indemnified for such expenses as the court deems proper.

Article 6.5 of the Registrant's by-laws further provides that directors and officers are entitled to be paid by the Registrant the expenses incurred in defending the proceedings specified above in advance of their final disposition. provided that such payment will only be made upon delivery to the Registrant by the indemnified party of an undertaking to repay all amounts so advanced if it is ultimately determined that the person receiving such payments is not entitled to be indemnified.

Article 6.4 of the Registrant's by-laws provides that a person indemnified under Article VI of the by-laws may contest any determination that a director, officer, employee or agent has not met the applicable standard of conduct set forth in the by-laws by petitioning a court of competent jurisdiction.

Article 6.6 of the Registrant's by-laws provides that the right to indemnification and the payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in the Article will not be exclusive of any other right which any person may have or acquire under the by-laws, or any statute or agreement. or otherwise.

Finally, Article 6.7 of the Registrant's by-laws provides that the Registrant may maintain insurance, at its expense, to reimburse itself and directors and officers of the Registrant and of its direct and indirect subsidiaries against any expense, liability or loss, whether or not the Registrant would have the power to indemnify such persons against such expense, liability or loss under the provisions of Article VI of the by-laws. The Registrant maintains and has in effect such insurance.

Article 11 of the Registrant's certificate of incorporation eliminates the personal liability of the Registrant's directors to the Registrant or its stockholders for monetary damages for breach of their fiduciary duties as a director to the fullest extent provided by Delaware law. Section 102(b)(7) of the DGCL provides for the elimination off such personal liability, except for liability (i) for any breach of the director's duty of loyalty to the Registrant or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL or (iv) for any transaction from which the director derived any improper personal benefit.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 (the "Securities Act") may be permitted to directors, officers or persons controlling the Registrant pursuant to the foregoing provisions, the Registrant has been informed 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.

ITEM 16. EXHIBITS

EXHIBIT NO.		DESCRIPTION
4.1*	--	Form of Series C Preferred Stock Purchase Agreement
4.2*	--	Form of Series D Preferred Stock Purchase Agreement
4.3*	--	Certificate of Designations for Series C Convertible Preferred Stock (included as Exhibit A to Exhibit 4.1)
4.4*	--	Certificate of Designations for Series D Convertible Preferred Stock (included as Exhibit A to Exhibit 4.2)
4.5*	--	Form of warrant issued in connection with the Series C Convertible Preferred Stock financing (included as Exhibit B to Exhibit 4.1)
4.6*	--	Form of warrant issued in connection with the Series D Convertible Preferred Stock financing (included as Exhibit B to Exhibit 4.2)
4.7*	--	Form of Registration Rights Agreement for the Series C Convertible Preferred Stock financing (included as Exhibit C to Exhibit 4.1)
4.8*	--	Form of Registration Rights Agreement for the Series D Convertible Preferred Stock financing (included as Exhibit C to Exhibit 4.2)
5.1*	--	Opinion of Snow Becker Krauss.
23.1*	--	Consent of Snow Becker Krauss P.C. (included in Exhibit 5.1)
23.2	--	Consent of Ernst & Young LLP, independent auditors.
24.1*	--	Power of Attorney (included in signature page of original filing of registration statement)

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* Previously filed.

ITEM 17. UNDERTAKINGS

(a) RULE 415 OFFERING

The undersigned small business issuer hereby undertakes that it will:

(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 l0(a) (3) of the Securities Act.

(ii) Reflect in the prospectus any facts or events which, individually or in the aggregate, represent a fundamental change in the information set forth in the registrant 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 "Calculation of Registration Fee" table in the effective registration statement.

(iii) 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.

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

(3) 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.

(e) REQUEST FOR ACCELERATION OF EFFECTIVE DATE

Insofar as indemnification for liabilities arising under the Securities Act of 1933 (the "Securities Act") may be permitted to directors, officers and controlling persons of the small business issuer pursuant to the foregoing provisions, or otherwise, the small business issuer 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 small business issuer of the expenses incurred or paid by a director, officer, or controlling person of the small business issuer 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 small business issuer 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.

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 for filing on Form S-3 and has duly caused this amendment to the Registration Statement to be signed on its behalf by the undersigned, hereunto duly authorized, in the City of Davis, State of California, on September 21, 1999.

INTEGRATED SURGICAL SYSTEMS, INC.

By: /s/ RAMESH C. TRIVEDI	By: /s/ MARK W. WINN
Ramesh C. Trivedi Chief Executive Officer and President (Principal Executive Officer)	Mark W. Winn Chief Financial Officer (Principal Financial and Accounting Officer)

Pursuant to the requirements of the Securities Act of 1933, this amendment to the Registration Statement has been signed by the following persons in the capacities indicated on September 21, 1999.

SIGNATURES	TITLE
/s/ RAMESH C. TRIVEDI Ramesh C. Trivedi	Chief Executive Officer and President (Principal Executive Officer)
/s/ MARK W. WINN Mark W. Winn	Chief Financial Officer (Principal Financial and Accounting Officer)
* James C. McGroddy	Chairman of the Board of Directors
* John N. Kapoor	Director
Paul A. H. Pankow	Director
Gerald D. Knudson	Director
* Patrick G. Hays	Director
*By:/s/ MARK W. WINN Mark W. Winn Attorney-in-fact	

EXHIBIT INDEX

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4.5*	--	Form of warrant issued in connection with the Series C Convertible Preferred Stock financing (included as Exhibit C to Exhibit 4.1).	
4.6*	--	Form of warrant issued in connection with the Series D Convertible Preferred Stock financing (included as Exhibit C to Exhibit 4.2).	
4.7*	--	Form of Registration Rights Agreement for the Series C Convertible Preferred Stock financing (included as Exhibit D to Exhibit 4.1).	
4.8*	--	Form of Registration Rights Agreement for the Series D Convertible Preferred Stock financing (included as Exhibit D to Exhibit 4.2).	
5.1*	--	Opinion of Snow Becker Krauss.	
23.1*	--	Consent of Snow Becker Krauss P.C. (included in Exhibit 5.1)	
23.2	--	Consent of Ernst & Young LLP, independent auditors.	
24.1*	--	Power of attorney (included on signature page of original filing of registration statement)	

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* Previously filed

Exhibit 23.2

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the reference to our firm under the caption "Experts" in Amendment No. 1 to the Registration Statement on Form S-3 (Registration No. 333-83067) and related Prospectus of Integrated Surgical Systems, Inc. for the registration of 2,121,635 shares of its common stock and to the incorporation by reference therein of our report dated February 12, 1999, with respect to the consolidated financial statements of Integrated Surgical Systems, Inc. included in its Annual Report (Form 10-KSB) for the year ended December 31, 1998, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Sacramento, California
September 21, 1999