

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT
under
THE SECURITIES ACT OF 1933

INTEGRATED SURGICAL SYSTEMS, INC.

(Exact name of Registrant as specified in its Charter)

1850 Research Park Drive
Davis, California 95616-4884
Telephone: (530) 792-2600
Telecopier: (530) 792-2690
(Address and telephone number of
principal executive offices)

68-0232575
(I.R.S. Employer
Identification Number)

Delaware
(State or other jurisdiction
of incorporation or organization)

INTEGRATED SURGICAL SYSTEMS, INC.
2000 Long-Term Performance Plan
(Full Title of the Plan)

Ramesh C. Trivedi
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

CALCULATION OF REGISTRATION FEE

<u>Title of Each Class of Securities to be Registered</u>	<u>Amount to be Registered</u>	<u>Proposed Maximum Offering Price Per Security (2)</u>	<u>Proposed Maximum Aggregate Offering Price (1)</u>	<u>Amount of Registration Fee</u>
Common Stock, \$.01 par value	1,000,000(1)	\$0.19	\$190,000.00	\$47.50

(1) Represents shares that may be issued under the 2000 Long-Term Performance Plan of Integrated Surgical Systems, Inc. (the Registrant). Also includes an indeterminate number of shares of Common Stock which may become issuable pursuant to the antidilution provisions of the plan.

(2) 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 January 2, 2001.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Certain Information By Reference

The following documents filed with the Securities and Exchange Commission (the "Commission") by Integrated Surgical Systems, Inc., a Delaware corporation (the "Company" or the "Registrant"), are incorporated by reference into this Registration Statement.

1. The Company's Annual Report on Form 10-KSB and Form 10-KSB/A (Amendment No. 1) for the fiscal year ended December 31, 1999, including any amendments to that report.
2. The Company's Quarterly Reports on Form 10-QSB for the fiscal quarters ended March 31, 2000, June 30, 2000, and September 30, 2000, including any amendments to those reports.
3. The description of the common stock, par value \$.01 per share, of the Company (the "Common Stock") contained in the Company's Registration Statement on Form 8-A (File No. 1-12471) filed pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any amendment or report filed for the purpose of updating such information.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, as amended (the "Exchange Act"), prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities

Not Applicable.

Item 5. Interests of Named Experts and Counsel.

Not Applicable.

Item 6. Indemnification of Directors and Officers

Article 6 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 6.4 of the Registrant's by-laws provides that a person indemnified under Article VI of the bylaws 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 6.5 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 6.6 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 II 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 of 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 may be permitted to directors, officers or persons controlling the Company pursuant to the foregoing provisions, the Company 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 7. Exhibits

Exhibit No	Description of Exhibit
4.1	- 2000 Long-Term Performance Plan. *
5.1	- Opinion of Snow Becker Krauss P.C.
23.1	- Consent of Snow Becker Krauss P.C. (included in Exhibit 5.1)
23.2	- Consent of Ernst & Young LLP.
24.1	- Power of Attorney (included in signature page of this Registration Statement)

* Incorporated by reference to the Registrant's Registration Statement on Form SB-2 (Registration No. 333-48040), declared effective on October 30, 2000.

Item 8. Required Undertakings

The Registrant hereby undertakes that it will:

- (a) (1) File, during any period in which offers or sales are being made, 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 in the aggregate, represent a fundamental change in the information set forth 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 "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;
provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the Registration Statement is on Form S-3 or Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.
 - (2) For the purpose of determining any liability under the Securities Act, 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.
- (b) The undersigned Registrant hereby undertakes that for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(e) of the Securities Exchange Act of 1934 that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against 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 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 for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, hereunto duly authorized, in the City of Davis, State of California, on December 22, 2000.

INTEGRATED SURGICAL SYSTEMS, INC.

By: /s/ Ramesh C. Trivedi

By: /s/ Louis Kirchner

Ramesh C. Trivedi
Chief Executive Officer and President
(Principal Executive Officer)

Louis Kirchner
Chief Financial Officer
(Principal Financial and Accounting Officer)

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints Ramesh C. Trivedi and Louis Kirchner, or either of them, as his true and lawful attorney-in- fact and agent, with power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying all that said attorney-in-fact and agent or his substitute or substitutes, or any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on December 22, 2000.

Signatures

/s/ Ramesh C. Trivedi

Ramesh C. Trivedi

Falah Al-Kadi

/s/ John N. Kapoor

John N. Kapoor

Title

Chief Executive Officer and President
and a Director
(Principal Executive Officer)

Chairman of the Board
of Directors

Director

SNOW BECKER KRAUSS P.C.

605 Third Avenue
New York, New York 10158
Phone: (212) 687-3860
Fax: (212) 949-7052
January 2, 2000

Integrated Surgical Systems, Inc.
1850 Research Park Drive
Davis, California 95616-4884

RE: REGISTRATION STATEMENT ON FORM S- 8

Gentlemen:

We have acted as counsel for Integrated Surgical Systems, Inc., a Delaware corporation (the "Company"), in connection with the Company's Registration Statement on Form S-8 (the "Registration Statement"), to be filed with the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended. The Registration Statement includes 1,000,000 shares of Common Stock that may be issued under the 2000 Long-Term Performance Plan (the "Plan") of the Company.

As counsel to the Company, we have examined the Company's Restated Certificate of Incorporation, as amended, By-laws, the Plan, records of corporate proceedings, and such other documents as we have deemed necessary or appropriate as a basis for the opinions set forth below. In such examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the accuracy and completeness of all documents submitted to us as copies and the authenticity of the originals of such latter documents. As to any facts material to such opinions which we did not independently establish or verify, we have relied upon statements or representations of officers and other representatives of the Company, public officials or others.

Based upon the foregoing, we are of the opinion that:

1. The Company has been duly organized, is validly existing and in good standing under the laws of the State of Delaware.
2. The shares of Common Stock that may be issued under the Plan have been duly authorized and reserved for issuance, and when duly issued and paid for in accordance with the Plan will be legally issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the prospectus filed with the Registration Statement.

Very truly yours,

/s/ SNOW BECKER KRAUSS P.C.

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2000 Long-Term Performance Plan of Integrated Surgical Systems, Inc. for the registration of 1,000,000 shares of its common stock and to the incorporation by reference therein of our report dated March 10, 2000, with respect to the consolidated financial statements of Integrated Surgical Systems, Inc. included in its Annual Report (Form 10-KSB and Form 10-KSB/A (Amendment No. 1)), for the year ended December 31, 1999 filed with the Securities and Exchange Commission.

ERNST & YOUNG LLP

Sacramento, California
January 2, 2001