

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

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

Arizona
(State or other jurisdiction of
incorporation or organization)

86-0411215
(I.R.S. Employer
Identification No.)

131 South Clark Drive, Tempe, Arizona
(Address of Principal Executive offices)

85281
(Zip Code)

1998 Stock Option Plan
(Full title of the plan)

Robert T. Hass
Amtech Systems, Inc.
131 South Clark Drive
Tempe, Arizona 85281
(Name and address of agent for service)

(480) 967-5146
(Telephone number, including area code, of agent for service)

With copy to:

Gregory R. Hall, Esq.
Squire, Sanders & Dempsey L.L.P.
40 North Central Avenue, Suite 2700
Phoenix, Arizona 85004
(602) 528-4000

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CALCULATION OF REGISTRATION FEE

TITLE OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE *	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE *	AMOUNT OF REGISTRATION FEE
Common Stock, \$.01 par value	250,000*	\$6.69**	\$1,672,500.00**	\$399.73

* This Registration Statement also covers such additional shares of Common Stock as may be issuable pursuant to adjustments deemed necessary or equitable by the Board of Directors of the Registrant upon stock splits, stock dividends, or other similar changes in capitalization, as provided in the 1998 Stock Option Plan.

** Estimated solely for the purpose of determining the registration fee in accordance with Rules 457(c) and 457(h) of the Securities Act of 1933, on the basis of the average of the high and low prices for shares of Common Stock on January 11, 2002, as reported on the Nasdaq SmallCap Market.

This Registration Statement also relates to the Form S-8 Registration Statement No. 333-46086, the contents of which are incorporated herein by reference pursuant to General Instruction E to Form S-8. Under such Registration Statement the Registrant registered 50,000 shares of common stock for issuance under the Amtech Systems, Inc. 1998 Stock Option Plan.

This Registration Statement shall become effective automatically upon the date

of filing in accordance with Section 8(a) of the Securities Act of 1933, as amended.

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PART I

INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS

The documents containing the information specified in Part I, Items 1 and 2, will be delivered to employees in accordance with Form S-8 and Securities Act Rule 428.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE.

The following documents are hereby incorporated by reference into this Registration Statement and shall be deemed a part hereof:

(a) the Annual Report of Amtech Systems, Inc. ("Amtech") on Form 10-K for the fiscal year ended September 30, 2001;

(b) all reports filed by Amtech with the Securities and Exchange Commission pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") subsequent to September 30, 2001; and

(c) the description of Amtech's common stock contained in Amtech's registration statement filed pursuant to Section 12 of the Exchange Act.

All documents subsequently filed by Amtech pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, after the date hereof and prior to the filing of a post-effective amendment to this Registration Statement 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 in this Registration Statement and to be a part hereof from the date of filing such documents.

Item 4. DESCRIPTION OF SECURITIES.

Not applicable.

Item 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not applicable.

Item 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Pursuant to Amtech's Articles of Incorporation, it shall indemnify any and all of its existing and former directors, officers, employees, and agents against all expenses incurred by them and each of them, including, but not limited to legal fees, judgments, penalties, and amounts paid in settlement or compromise, which may arise or be incurred, rendered, or levied in any legal action brought or threatened against any of them for or on account of any action or omission alleged to have been committed while acting within the scope of employment as director, officer, employee or agent of the corporation, whether or not any action is or has been filed against them and whether or not any settlement or compromise is approved by a court, indemnification shall be made

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by the corporation whether the legal action brought or threatened is by or in the right of the corporation or by any other person. Whenever any existing or former director, officer, employee, or agent shall report to the President of the corporation or the chairman of the Board of Directors that he or she has incurred or may incur expenses, including, but not limited to, legal fees, judgments, penalties, and amounts paid in settlement or compromise in a legal action brought or threatened against him or her for or on account of any action or omission alleged to have been committed by him or her while acting within the scope of his or her employment as a director, officer, employee or agent of the corporation, the Board of Directors shall, at its next regular or at a special meeting held within a reasonable time thereafter, determine in good faith, whether in regard to the matter involved in the action or contemplated action, such person acted, failed to act, or refused to act willfully or with gross negligence or with fraudulent or criminal intent. If the Board of Directors determines, in good faith, that such person did not act, fail to act, or refuse to act willfully or with gross negligence or with fraudulent or criminal intent, in regard to the matter involved in the action or contemplated action, such person acted, failed to act, or refused to act willfully or with gross negligence or with fraudulent criminal intent, indemnification shall be mandatory and shall be automatically extended as specified herein; provided, that the corporation shall have the right to refuse indemnification in any instance in which the person to whom indemnification would otherwise have been applicable shall have unreasonably refused to permit the corporation, at its own expense and through counsel of its own choosing, to defend him or her in the

action.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling Amtech pursuant to the foregoing provision, Amtech has been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in such Act and is therefore unenforceable.

Item 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

Item 8. EXHIBITS.

EXHIBIT NUMBER -----	DESCRIPTION -----
4	1998 Stock Option Plan (as amended March 15, 2001)
5	Form of opinion rendered by Squire, Sanders & Dempsey L.L.P. (including consent)
23.1	Consent of Arthur Andersen LLP
23.2	Consent of Counsel (see Exhibit 5)
24	Powers of Attorney

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Item 9. UNDERTAKINGS.

(a) The undersigned Registrant hereby undertakes:

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

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement 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 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

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

PROVIDED, HOWEVER, that paragraphs (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) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial BONA FIDE offering thereof.

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

(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(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement

relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial BONA FIDE offering thereof.

(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 such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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, thereunto duly authorized, in the City of Tempe, State of Arizona, on this 15th day of January, 2002.

AMTECH SYSTEMS, INC.,
an Arizona corporation

By /s/ Jong S. Whang

Jong S. Whang, President
(Principal Executive Officer)

SPECIAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned constitutes and appoints Robert T. Hass as his true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Form S-8 Registration Statement, and to file the same with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting such attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully and to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that such attorney-in-fact and agent 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 below by the following persons in the capacities and on the date indicated.

<TABLE>
<CAPTION>

Signature -----	Title -----	Date ----
<S> /s/ Jong S. Whang ----- Jong S. Whang	<C> Chairman of the Board, President and Chief Executive Officer (Chief Executive Officer)	<C> January 15, 2002
/s/ Robert T. Hass ----- Robert T. Hass	Vice President-Finance, Chief Financial Officer, Secretary and Treasurer (Chief Financial & Accounting Officer) and Director	January 15, 2002
/s/ Donald F. Johnston ----- Donald F. Johnston	Director	January 15, 2002
/s/ Alvin Katz ----- Alvin Katz	Director	January 15, 2002
/s/ Bruce R. Thaw ----- Bruce R. Thaw	Director	January 15, 2002

</TABLE>

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EXHIBIT INDEX

EXHIBIT NUMBER - - - - -	DESCRIPTION - - - - -	PAGE OR METHOD OF FILING - - - - -
4	1998 Stock Option Plan (as amended March 15, 2001)	*
5	Form of opinion rendered by Squire, Sanders & Dempsey L.L.P (including consent)	*
23.1	Consent of Arthur Andersen LLP	*
23.2	Consent of Counsel	See Exhibit 5
24	Powers of Attorney	See Signature Page

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* Filed herewith.

AMTECH SYSTEMS, INC.

1998 STOCK OPTION PLAN

(AMENDED AS OF MARCH 15, 2001)

1. PURPOSE OF THE PLAN. The purposes of this 1998 Stock Option Plan are to advance the interests of Amtech Systems, Inc. (the "Company") by inducing persons of outstanding ability and potential to join and remain with the Company, by encouraging, motivating and enabling employees to acquire stock ownership in the Company, and by providing the participating employees with an additional incentive to promote the success of the Company through the grant of options to purchase shares of the Company's Common Stock. Options granted hereunder may be either "Incentive Stock Options," as defined in Section 422 of the Internal Revenue Code of 1986, as amended, or "Nonstatutory Stock Options," at the discretion of the Board or a Committee appointed by the Board and as reflected in the terms of the written option agreement ("Option Agreement").

2. DEFINITIONS. As used herein, the following definitions shall apply:

(a) "BOARD" shall mean the Board of Directors of the Company or the Committee, if one has been appointed.

(b) "CODE" shall mean the Internal Revenue Code of 1986, as amended, and the rules and regulations promulgated thereunder.

(c) "COMMON STOCK" shall mean the common stock of the Company described in the Company's Certificate of Incorporation, as amended.

(d) "COMPANY" shall mean Amtech Systems, Inc., an Arizona corporation, and shall include any parent or subsidiary corporation of the Company as defined in Sections 424(e) and (f), respectively, of the Code.

(e) "COMMITTEE" shall mean the Committee appointed by the Board in accordance with paragraph (a) of Section 4 of the Plan, if one is appointed.

(f) "EMPLOYEE" shall mean any person, including officers and directors, employed by the Company. The payment of a director's fee by the Company shall not be sufficient to constitute "employment" by the Company.

(g) "EXCHANGE ACT" shall mean the Securities and Exchange Act of 1934, as amended.

(h) "FAIR MARKET VALUE" shall mean, with respect to the date a given Option is granted or exercised, the value of the Common Stock determined by the Board or the Committee in such manner as it may deem equitable for Plan purposes but, in the case of an Incentive Stock Option, no less than is required by applicable laws or regulations; provided, however, that where there is a public market for the Common Stock, the Fair Market Value per Share shall be the average of the bid and asked prices of the Common Stock on the date of grant if the Common Stock is then included for quotation on the NASDAQ SmallCap Market or, the Fair Market Value per Share shall be the closing price of the Common Stock if the Common Stock is then included on the NASDAQ National Market or listed on the New York, American or Pacific Stock Exchange. The Board or a Committee appointed by the Board may rely upon published quotations in THE WALL STREET JOURNAL or a comparable publication for purposes of the calculation of the Fair Market Value per Share as set forth above.

(i) "INCENTIVE STOCK OPTION" shall mean an Option which is intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

(j) "OPTION" shall mean a stock option granted under the Plan.

(k) "OPTIONED STOCK" shall mean the Common Stock subject to an Option.

(l) "OPTIONEE" shall mean an Employee of the Company who has been granted one or more Options.

(m) "PARENT" shall mean a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(n) "PLAN" shall mean this Stock Option Plan.

(o) "SHARE" shall mean a share of the Common Stock, as adjusted in accordance with Section 11 of the Plan.

(p) "SUBSIDIARY" shall mean a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

(q) "TAX DATE" shall mean the date an Optionee is required to pay the Company an amount with respect to tax withholding obligations in connection with

the exercise of an option.

3. COMMON STOCK SUBJECT TO THE PLAN. Subject to the provisions of Section 11 of the Plan, the maximum aggregate number of shares which may be optioned and sold under the Plan is 300,000 Shares of Common Stock. The Shares may be authorized, but unissued, or previously issued Shares acquired or to be acquired by the Company and held in treasury.

If an Option should expire or become unexercisable for any reason without having been exercised in full, the unpurchased Shares covered by such Option shall, unless the Plan shall have been terminated, be available for future grants of Options.

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4. ADMINISTRATION OF THE PLAN.

(a) PROCEDURE.

(1) The Plan shall be administered by the Board in accordance with Securities and Exchange Commission Rule 16b-3 ("Rule 16b-3"); provided, however, that the Board may appoint a Committee to administer the Plan at any time or from time to time and, provided further, that if members of the Board are not "disinterested" within the meaning of Securities and Exchange Commission Rule 16b-3, then any participation by directors in the Plan must be administered by a Committee appointed by the Board.

(2) The Committee shall consist of at least two (2) members of the Board, each of whom is "disinterested" within the meaning of Securities and Exchange Commission Rule 16b-3 to administer the Plan on behalf of the Board, subject to such terms and conditions as the Board may prescribe. Once appointed, the Committee shall continue to serve until otherwise directed by the Board. From time to time the Board may increase the size of the Committee and appoint additional members thereof, remove members (with or without cause), and appoint new members in substitution therefor, fill vacancies however caused, or remove all members of the Committee and thereafter directly administer the Plan; provided, however, that at no time may any director who is not "disinterested" within the meaning of Securities and Exchange Commission Rule 16b-3 serve on the Committee nor shall a Committee of less than two (2) members administer the Plan.

(b) POWERS OF THE BOARD. Subject to the provisions of the Plan, the Board or a Committee appointed by the Board shall have the authority, in its discretion: (i) to grant Incentive Stock Options, in accordance with Section 422 of the Code, and to grant "nonstatutory stock options;" (ii) to determine, upon review of relevant information and in accordance with Section 2 of the Plan, the Fair Market Value of the Common Stock; (iii) to determine the exercise price per Share of Options to be granted, which exercise price shall be determined in accordance with Section 8(a) of the Plan; (iv) to determine the Employees to whom, and the time or times at which Options shall be granted and the number of shares to be represented by each Option; (v) to interpret the Plan; (vi) to prescribe, amend and rescind rules and regulations relating to the Plan; (vii) to determine the terms and provisions of each Option granted (which need not be identical) and, with the consent of the Optionee thereof, modify or amend each Option; (viii) to accelerate or defer (with the consent of the Optionee) the exercise date of any Option; (ix) to authorize any person to execute on behalf of the Company any instrument required to effectuate the grant of an Option previously granted by the Board or a Committee appointed by the Board; (x) to accept or reject the election made by an Optionee pursuant to Section 18 of the Plan; and (xi) to make all other determinations deemed necessary or advisable for the administration of the Plan.

(c) EFFECT OF BOARD'S DECISION. All decisions, determinations and interpretations of the Board or a Committee appointed by the Board, shall be final and binding on all Optionees and any other holders of any Options granted under the Plan.

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5. ELIGIBILITY.

(a) Consistent with the Plan's purposes, Options may be granted only to Employees of the Company as determined by the Board or a Committee appointed by the Board. An Employee who has been granted an Option may, if he is otherwise eligible, be granted an additional Option or Options. Incentive Stock Options may be granted only to those Employees who meet the requirements applicable under Section 422 of the Code.

(b) With respect to Incentive Stock Options granted under the Plan, the aggregate fair market value (determined at the time the Incentive Stock Option is granted) of the Common Stock with respect to which Incentive Stock Options are exercisable for the first time by the employee during any calendar year (under all plans of the Company and its parent and subsidiary corporations) shall not exceed One Hundred Thousand Dollars (\$100,000).

The Plan shall not confer upon any Optionee any right with respect to continuation of employment with the Company, nor shall it interfere in any way

with his right or the Company's right to terminate his employment at any time.

6. EFFECTIVE DATE. The Plan shall take effect on January 31, 1998, the date on which the Board approved the Plan. No Option may be granted after January 30, 2008 (ten years from the effective date of the Plan); provided, however, that the Plan and all outstanding Options shall remain in effect until such Options have expired or until such Options are canceled. The Plan shall be submitted for shareholder approval at the next meeting of shareholders of the Company; provided, however, that failure to obtain such approval shall not affect the effectiveness of the Plan.

7. TERM OF OPTION. Unless otherwise provided in the Option Agreement, the term of each Incentive Stock Option shall be ten (10) years from the date of grant thereof. Unless otherwise provided in the Option Agreement, the term of each Option which is not an Incentive Stock Option shall be eleven (11) years from the date of grant. Notwithstanding the above, in the case of an Incentive Stock Option granted to an Employee who, at the time the Incentive Stock Option is granted, owns ten percent (10%) or more of the Common Stock as such amount is calculated under Section 422(b)(6) of the Code ("Ten Percent Shareholder"), the term of the Incentive Stock Option shall be five (5) years from the date of grant thereof or such shorter time as may be provided in the Option Agreement.

8. EXERCISE PRICE AND PAYMENT.

(a) EXERCISE PRICE. The per Share exercise price for the Shares to be issued pursuant to exercise of an Option shall be determined by the Board or a Committee appointed by the Board, but in the case of an Incentive Stock Option shall be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant; provided, further, that in the case of an Incentive Stock Option granted to an Employee who, at the time of the grant of such Incentive Stock Option, is a Ten Percent Shareholder, the per Share exercise price shall be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant. In no event may the exercise price in the case of a nonstatutory stock option be less than eighty-five (85%) of the Fair Market Value per share on the date of grant.

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The Company will pay any documentary stamp taxes, handling or certificate issuance fees attributable to the initial issuance of shares of Common Stock upon the exercise of any Option under the Plan; provided, however, that the Company shall not be required to pay any fees or taxes which may be payable with respect to any transfer involved in the issuance or delivery of any certificates for shares in a name other than that of the holder of an Option.

(b) PAYMENT. The price of an exercised Option and any taxes attributable to the delivery of Common Stock under the Plan, or portion thereof, shall be paid:

(1) In United States dollars in cash or by check, bank draft or money order payable to the order of the Company; or

(2) At the discretion of the Board or a Committee appointed by the Board, through the delivery of shares of Common Stock, with an aggregate Fair Market Value, equal to the option price; or

(3) By a combination of (1) and (2) above.

The Board or a Committee appointed by the Board shall determine acceptable methods for tendering Common Stock as payment upon exercise of an Option and may impose such limitations and prohibitions on the use of Common Stock to exercise an Option as it deems appropriate, with respect to nonstatutory options, at the election of the Optionee pursuant to Section 18, the Company may satisfy its withholding obligations by retaining such number of shares of Common Stock subject to the exercised Option which have an aggregate Fair Market value on the exercise date equal to the Company's aggregate federal, state, local and foreign tax withholding and FICA and FUTA obligations with respect to income generated by the exercise of the Option by Optionee.

9. EXERCISE OF OPTION.

(a) PROCEDURE FOR EXERCISE; RIGHTS AS A SHAREHOLDER. Any Option granted hereunder shall be exercisable at such times and under such conditions as determined by the Board or a Committee appointed by the Board, including performance criteria with respect to the Company and/or the Optionee, and as shall be permissible under the terms of the Plan. Unless otherwise determined by the Board or a Committee appointed by the Board at the time of grant, an Option may be exercised in whole or in part, but in no case may any option be exercised as to less than One Hundred (100) shares at any one time (or the remaining shares covered by the option if less than One Hundred (100) shares)). An Option may not be exercised for a fraction of a Share.

An Option shall be deemed to be exercised when written notice of such exercise has been given to the Company at its principal office to the attention of the Secretary of the Company in accordance with the terms of the Option by the person entitled to exercise the Option and full payment for the

Shares with respect to which the Option is exercised has been received by the Company. Full payment may, as authorized by the Board or a Committee appointed by the Board, consist of any consideration and method of payment allowable under Section 8(b) of the Plan. Until the issuance (as evidenced by the appropriate

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entry on the books of the Company or of a duly authorized transfer agent of the Company) of the stock certificate evidencing such Shares, no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued, except as provided in Section 11 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares which thereafter may be available, both for purposes of the Plan and for sale under the Option by the number of Shares as to which the Option is exercised.

Notwithstanding anything contained in this Plan to the contrary, the Board or a Committee appointed by the Board may establish certain restrictions on the times at which an Option may be exercised after a number of elapsed years together with cumulative exercise rights and may retain certain rights with respect to a fixed repurchase price for the Option Stock if the Employee voluntarily terminates his employment with the Company within a certain period of time after exercising the Option or whose employment is involuntarily terminated for gross misconduct, fraud, embezzlement, theft, breach of any fiduciary duty owed to the Company or for nonperformance of duties.

(b) TERMINATION OF STATUS AS AN EMPLOYEE.

(1) TERMINATION OF EMPLOYMENT. Unless otherwise provided in an Option Agreement relating to an Option that is not an Incentive Stock Option, if an Employee's employment by the Company is terminated, whether voluntary or for cause, except if such termination occurs due to termination by the Company without cause, retirement, death or disability, the Option, to the extent not exercised, shall cease on the date on which Employee's employment by the Company is terminated. For purposes of this Section 9, an employee who leaves the employ of the Company to become an employee of a subsidiary or parent corporation of the Company or a corporation which has assumed the option of the Company as a result of a corporate reorganization, etc., shall not be considered to have terminated his employment. For purposes of this Section 9, the employment relationship of an employee of the Company or of a subsidiary corporation of the Company will be treated as continuing intact while he is on military or sick leave or other bona fide leave of absence (such as temporary employment by the government) if such leave does not exceed ninety (90) days, or, if longer, so long as his right to reemployment is guaranteed either by statute or by contract.

(2) RETIREMENT AND TERMINATIONS BY THE COMPANY WITHOUT CAUSE. For purposes of the Plan, the retirement of an individual either pursuant to a pension or retirement plan adopted by the Company or at the normal retirement date prescribed from time to time by the Company, shall be deemed to be a termination of such individual's employment other than voluntary or for cause. If an Employee's termination is due to retirement or is initiated by the Company without cause, then the Employee may, but only within ninety (90) days after the date he ceases to be an Employee of the Company, exercise his Option to the extent that he was entitled to exercise it at the date of such termination. To the extent that he was not entitled to exercise the Option at the date of such termination, or if he does not exercise such Option (which he was entitled to exercise) within the time specified herein, the Option shall terminate.

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(3) DISABILITY. Unless otherwise provided in an Option Agreement relating to an Option that is not an Incentive Stock Option, notwithstanding the provisions of Section 9(b) above, in the event an Employee is unable to continue his employment with the Company as a result of his permanent and total disability (as defined in Section 22(e)(3) of the Code), he may, but only within one (1) year from the date of termination, exercise his Option to the extent he was entitled to exercise it at the date of such termination. To the extent that he was not entitled to exercise the Option at the date of termination, or if he does not exercise such Option (which he was entitled to exercise) within the time specified herein, the Option shall terminate.

(4) DEATH OF OPTIONEE. Unless otherwise provided in an Option Agreement relating to an Option that is not an Incentive Stock Option, if Optionee dies during the term of the Option and is at the time of his death an Employee of the Company who shall have been in continuous status as an Employee since the date of grant of the Option, the Option may be exercised at any time within one (1) year following the date of death (or such other period of time as is determined by the Board or a Committee appointed by the Board), by the Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, but only to the extent that Optionee was entitled to exercise the Option on the date of death. To the extent that decedent was not entitled to exercise the Option on the date of death, or if the Optionee's

estate, or person who acquired the right to exercise the Option by bequest or inheritance, does not exercise such Option (which he was entitled to exercise) within the time specified herein, the Option shall terminate.

10. NON-TRANSFERABILITY OF OPTION. An Option may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Optionee, only by the Optionee.

11. ADJUSTMENTS UPON CHANGES IN CAPITALIZATION OR MERGER. Subject to any required action by the shareholders of the Company, the number of shares of Common Stock covered by each outstanding Option, and the number of shares of Common Stock which have been authorized for issuance under the Plan but as to which no Options have yet been granted or which have been returned to the Plan upon cancellations or expiration of an Option, as well as the price per share of Common Stock covered by each such outstanding Option, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the common stock, or any other increase or decrease in the number of issued shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Board or a Committee appointed by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class shall affect, and no adjustment by reason thereof, shall be made with respect to the number or price of shares of Common Stock subject to an Option.

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In the event of the proposed dissolution or liquidation of the Company, the Option will terminate immediately prior to the consummation of such proposed action, unless otherwise provided by the Board or a Committee appointed by the Board. The Board or a Committee appointed by the Board may, in the exercise of its sole discretion in such instances, declare that any Option shall terminate as of a date fixed by the Board or a Committee appointed by the Board and give each Optionee the right to exercise his Option as to all or any part of the Optioned Stock, including Shares as to which the Option would not otherwise be exercisable. In the event of a proposed sale of all or substantially all of the assets of the Company, or the merger of the Company with or into another corporation, the Option shall be assumed or an equivalent option shall be substituted by such successor corporation or a parent or subsidiary of such successor corporation, unless the Board or a Committee appointed by the Board determines, in the exercise of its sole discretion and in lieu of such assumption or substitution, that the Optionee shall have the right to exercise the Option as to all of the Optioned Stock, including Shares as to which the Option would not otherwise be exercisable. If the Board or a Committee appointed by the Board makes an Option fully exercisable in lieu of assumption or substitution in the event of a merger or sale of assets, the Board or a Committee appointed by the Board shall notify the Optionee that the Option shall be fully exercisable for a period of thirty (30) days from the date of such notice (but not later than the expiration of the term of the Option under the Option Agreement), and the Option will terminate upon the expiration of such period.

12. TIME OF GRANTING OPTIONS. The date of grant of an Option shall, for all purposes, be the date on which the Board or a Committee appointed by the Board makes the determination granting such Option. Notice of the determination shall be given to each Employee to whom an Option is so granted within a reasonable time after the date of such grant.

13. AMENDMENT AND TERMINATION OF THE PLAN.

(a) AMENDMENT AND TERMINATION. The Board may amend or terminate the Plan from time to time in such respect as the Board may deem advisable; provided, however, that the following revisions or amendments shall require approval of the holders of a majority of the outstanding Shares of the Company entitled to vote:

(1) Any increase in the number of Shares subject to the Plan, other than in connection with an adjustment under Section 11 of the Plan;

(2) Any change in the designation of the class of employees eligible to be granted Options; or

(3) If the Company has a class of equity security registered under Section 12 of the Exchange Act at the time of such revision or amendment, any material increase in the benefits accruing to participants under the Plan.

(b) EFFECT OF AMENDMENT OR TERMINATION. Any such amendment or termination of the Plan shall not affect Options already granted and such Options shall remain in full force and effect as if this Plan had not been amended or terminated, unless mutually agreed otherwise between the Optionee and the Board, which agreement must be in writing and signed by the Optionee and the

14. CONDITIONS UPON ISSUANCE OF SHARES. Shares shall not be issued pursuant to the exercise of an Optionee unless the exercise of such Option and the issuance and delivery of such Shares pursuant thereto shall comply with all relevant provisions of law, including, without limitation, the Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, and the requirements of any stock exchange upon which the Shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

As a condition to the exercise of an Option, the Company may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned relevant provisions of law.

In the case of an Incentive Stock Option, any Optionee who disposes of Shares of Common Stock acquired on the exercise of an Option by sale or exchange (a) either within two (2) years after the date of the grant of the Option under which the Common Stock was acquired or (b) within one (1) year after the acquisition of such Shares of Common Stock shall notify the Company of such disposition and of the amount realized upon such disposition.

Stock certificates evidencing unregistered shares acquired upon the exercise of Options shall bear a restrictive securities legend substantially as follows:

"THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION. THE SECURITIES MAY NOT BE SOLD OR OFFERED FOR SALE IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND APPLICABLE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION, OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED."

15. CHANGE IN CONTROL. Each Option that is outstanding on a Control Change Date, as hereinafter defined, shall be exercisable in whole or in part on that date and thereafter during the remainder of the Option period stated in the Option Agreement. A "Change in Control" occurs if, after the date of the initial Agreement, (1) any person, including a "group" as defined in Section 13(d)(3) of the Exchange Act, becomes the owner or beneficial owner of the Company's securities having 20% or more of the combined voting power of the then outstanding Company's securities that may be cast for the election of the Company's directors (other than as a result of an issuance of securities initiated by the Company, or open market purchases approved by the Board of Directors as long as a majority of the Board of Directors approving the purchases is in the majority at the time the purchases are made); or (2) as the direct or indirect result of, or in connection with, a cash tender or exchange offer, a merger or other business combination, a sale of assets, a contested

election, or any combination of these transactions, the persons who were directors of the Company before such transactions ceased to constitute a majority of the Company's Board of Directors or any successor's board, within two years of the last of such transactions. For purposes of this Section, the "Control Change Date" is the date on which an event described in (1) or (2) occurs. If a Change of Control occurs on account of a series of transactions, the Control Change Date is the date of the last of such transactions.

16. RESERVATION OF SHARES; ISSUANCE AND SALE OF SHARES. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan. Inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

17. OPTION AGREEMENT. Options shall be evidenced by written option agreements in such form as the Board shall approve.

18. WITHHOLDING TAXES. Subject to Section 4(b)(x) of the Plan and prior to the Tax Date, the Optionee may make an irrevocable election to have the Company withhold from those Shares that would otherwise be received upon the exercise of any nonstatutory stock option, a number of Shares having a Fair Market Value equal to the minimum amount necessary to satisfy the Company's federal, state, local and foreign tax withholding obligations and FICA and FUTA obligations with respect to the exercise of such Option by the Optionee.

An Optionee who is also an officer of the Company must make the

above-described election:

(a) at least six months after the date of grant of the Option (except in the event of death or disability); and (b) either:

(1) six months prior to the Tax Date, or

(2) prior to the Tax Date and during the period beginning on the third business day following the date of the Company releases its quarterly or annual statement of sales and earnings and ending on the twelfth business day following such date.

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19. MISCELLANEOUS PROVISIONS.

(a) NOT A CONTRACT OF EMPLOYMENT. Nothing contained in the Plan or in any Option Agreement executed pursuant to the Plan shall be deemed to confer upon any individual to whom an Option may be granted hereunder any right to remain in the employ or service of the Company or a parent or subsidiary corporation of the Company.

(b) PLAN EXPENSES. Any expenses of administering this Plan shall be borne by the Company.

(c) USE OF EXERCISE PROCEEDS. The payment received from Optionees from the exercise of Options shall be used for the general corporate purposes of the Company.

(d) CONSTRUCTION OF PLAN. The place of administration of the Plan shall be in the State of Arizona, and the validity, construction, interpretation, administration and effect of the Plan and of its rules and regulations, and rights relating to the Plan, shall be determined in accordance with the laws of the State of Arizona and where applicable, in accordance with the Code.

(e) TAXES. The Company shall be entitled if necessary or desirable to pay or withhold the amount of any tax attributable to the delivery of Common Stock under the Plan from other amounts payable to the Employee after giving the person entitled to receive such Common Stock notice as far in advance as practical, and the Company may defer making delivery of such Common Stock if any such tax may be pending unless and until indemnified to its satisfaction.

(f) INDEMNIFICATION. In addition to such other rights of indemnification as they may have as members of the Board or a Committee appointed by the Board, the members of the Board or a Committee shall be indemnified by the Company against all costs and expenses reasonably incurred by them in connection with any action, suit or proceeding to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan or any Option, and against all amounts paid by them in settlement thereof (provided such settlement is approved by independent legal counsel selected by the Company) or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except a judgment based upon a finding of bad faith; provided that upon the institution of any such action, suit or proceeding a Board or Committee member shall, in writing give the Company notice thereof and an opportunity, at its own expense, to handle and defend the same before such Board or Committee member undertakes to handle and defend it on her or his own behalf.

(g) GENDER. For purposes of this Plan, words used in the masculine gender shall include the feminine and neuter, and the singular shall include the plural and vice versa, as appropriate.

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FORM OF OPINION OF COUNSEL

January 15, 2002

Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549

Re: Amtech Systems, Inc.
1998 Stock Option Plan

Ladies and Gentlemen:

We have acted as counsel to Amtech Systems, Inc., an Arizona corporation (the "Company"), in connection with its Registration Statement on Form S-8 (the "Registration Statement") filed under the Securities Act of 1933, as amended, relating to the registration of 250,000 shares of its Common Stock, \$.01 par value (the "Shares"), issuable pursuant to the Company's 1998 Stock Option Plan (the "Plan").

In that connection, we have examined minutes of a meeting of the Company's Board of Directors held on March 15, 2001, at which the Shares were authorized for issuance under the Plan. We have further examined such documents, corporate records and other instruments as we have deemed necessary or appropriate for purposes of this opinion, including the Certificate of Incorporation and the Bylaws of the Company, including all amendments thereto. For purposes of our opinion, we have assumed the availability of a sufficient number of authorized and unissued shares at the time of such issuance.

Based upon the foregoing, we are of the opinion that the Shares, when issued and sold in accordance with the terms of the Plan, will be validly issued, fully paid and nonassessable.

We hereby consent to the use of this opinion as an exhibit to the Registration Statement.

Very truly yours,

/s/ SQUIRE, SANDERS & DEMPSEY L.L.P.

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this registration statement of our report dated January 9, 2002, included in Amtech Systems, Inc.'s Form 10-K for the year ended September 30, 2001, and to all references to our firm included in this registration statement.

/s/ ARTHUR ANDERSEN LLP

Phoenix, Arizona
January 9, 2002