SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 SCHEDULE 14A (Rule 14a-101) INFORMATION REQUIRED IN PROXY STATEMENT SCHEDULE 14A INFORMATION Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 Filed by the Registrant [X] Filed by a Party other than the Registrant [] Check the appropriate box: [] Preliminary Proxy Statement [X] Definitive Proxy Statement [] Confidential, For Use of the Commission Only (as permitted Definitive Additional Materials by Rule 14a-6(e)(2)) [] [] Soliciting Material Pursuant to Rule 14a-11(c) or Rule 14a-12 AMTECH SYSTEMS, INC. - -----_____ (Name of Registrant as Specified in Its Charter) - ------(Name of Person(s) Filing Proxy Statement, if other than the registrant) Payment of Filing Fee (Check the appropriate box): [X] No fee required. [] Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11. 1) Title of each class of securities to which transaction applies: _____ 2) Aggregate number of securities to which transaction applies: _____ 3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined): _____ 4) Proposed maximum aggregate value of transaction: _____ 5) Total fee paid: _ _____ [] Fee paid previously with preliminary materials: _____ [] Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the form or schedule and the date of its filing. 1) Amount previously paid: _____ 2) Form, Schedule or Registration Statement No.: _____ 3) Filing Party: _____ 4) Date Filed: _____ AMTECH SYSTEMS, INC. 131 SOUTH CLARK DRIVE TEMPE, ARIZONA 85281

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS

TO BE HELD ON MARCH 15, 2001

The 2001 Annual Meeting of Shareholders of AMTECH SYSTEMS, INC., an Arizona corporation (the "Company"), will be held at the Hilton Phoenix Airport Hotel, 2435 South 47th Street, Phoenix, Arizona, on March 15, 2001, at 9:00 a.m., Mountain Standard Time, for the following purposes:

- 1. To elect five (5) directors to serve for one year terms;
- To approve an amendment to the Company's 1998 Stock Option Plan (the "Plan") to increase the aggregate number of shares available for issuance thereunder from 50,000 to 300,000; and
- 3. To transact such other business as may properly come before the meeting or any postponement(s) or adjournment(s) thereof. Management is presently aware of no other business to come before the meeting.

The foregoing items of business are more fully described in the Proxy Statement accompanying this notice. The Company is presently aware of no other business to come before the Annual Meeting.

The Board of Directors has fixed the close of business on February 7, 2001, as the record date (the "Record Date") for the determination of shareholders entitled to notice of and to vote at the meeting or any postponement or adjournment thereof. Shares of common stock of the Company can be voted at the meeting only if the holder is present at the meeting in person or by valid proxy. A copy of the Company's 2000 Annual Report, which includes audited financial statements, was mailed with this Notice and Proxy Statement to all shareholders of record on the Record Date.

Management of the Company cordially invites you to attend the Annual Meeting. Your attention is directed to the attached Proxy Statement for a discussion of the foregoing proposals and the reasons why the Board of Directors encourages you to vote for approval of such proposals.

By Order of the Board of Directors

/s/ Robert T. Hass

Robert T. Hass, Secretary

Tempe, Arizona February 19, 2001

IMPORTANT: IT IS IMPORTANT THAT YOUR SHAREHOLDINGS BE REPRESENTED AT THIS MEETING. PLEASE COMPLETE, DATE, SIGN AND PROMPTLY MAIL THE ENCLOSED PROXY CARD IN THE ACCOMPANYING ENVELOPE, WHICH REQUIRES NO POSTAGE IF MAILED IN THE UNITED STATES.

AMTECH SYSTEMS, INC.

131 SOUTH CLARK DRIVE

TEMPE, ARIZONA 85281

PROXY STATEMENT

This Proxy Statement is being furnished to shareholders of AMTECH SYSTEMS, INC., an Arizona corporation (the "Company"), in connection with the solicitation of proxies by the Board of Directors for use at the 2001 Annual Meeting of Shareholders of the Company to be held on March 15, 2001, at 9:00 a.m., Mountain Standard Time, and any adjournment or postponement thereof (the "Annual Meeting"). A copy of the Notice of the Meeting accompanies this Proxy Statement. This Proxy Statement and the accompanying form of Proxy Card are being mailed on or about February 19, 2001.

SOLICITATION AND VOTING OF PROXIES

Only shareholders of record at the close of business on February 7, 2001 (the "Record Date"), are entitled to notice of and to vote at the Annual Meeting or any adjournment or postponement thereof. On the Record Date, 2,628,871 shares of common stock, \$.01 par value (the "Common Stock"), were issued and outstanding. Except as set forth below with respect to the ability to cumulate votes for directors, each holder of Common Stock is entitled to one vote, exercisable in person or by proxy, for each share of the Company's Common Stock held of record on the Record Date on each matter of business to be considered at the Annual Meeting.

At the Annual Meeting, five (5) directors are to be elected to serve for a term of one year or until their respective successors are elected and qualified. Each shareholder present at the Annual Meeting, either in person or by proxy, will have an aggregate number of votes in the election of directors equal to five (the number of persons nominated for election as directors) multiplied by the number of shares of Common Stock of the Company held by each such shareholder on the Record Date. The resulting aggregate number of votes may be cast by the shareholder for the election of any single nominee, or the shareholder may distribute such votes among any number or all of the nominees. The five nominees receiving the highest number of votes will be elected to the Board of Directors.

All valid proxies received before the Annual Meeting and not revoked will be exercised. All shares represented by proxy will be voted, and where a shareholder specifies by means of his or her proxy a choice with respect to any matter to be acted upon, the shares will be voted in accordance with the specifications so made. If the signed proxy is returned without instructions and authority to vote is not specifically withheld, the persons named in the proxy solicited by the Board of Directors intend to vote for (i) the election of the nominees for director listed below; and (ii) the proposal to amend the Company's 1998 Stock Option Plan to increase the number of shares authorized for issuance thereunder from 50,000 to 300,000. Abstentions and broker non-votes will be included in the determination of the number of shares represented for a quorum.

The cost of soliciting proxies, including the cost of preparing and mailing the Notice and Proxy Statement, will be paid by the Company. Solicitation will be primarily by mailing this Proxy Statement to all shareholders entitled to vote at the meeting. Proxies may be solicited by officers and directors of the Company personally or by telephone or facsimile, without additional compensation. The Company may reimburse brokers, banks and others holding shares in their names for others for the cost of forwarding proxy materials and obtaining proxies from beneficial owners. A person giving the enclosed Proxy has the power to revoke it before it is exercised by: (a) delivering to the Secretary of the Company a written instrument of revocation bearing a date later than the date of the proxy; or (b) duly executing and delivering to the Secretary a proxy relating to the same shares bearing a later date; or (c) attending the meeting and voting in person, provided that the shareholder notifies the Secretary of the meeting of his or her intention to vote in person at any time prior to the voting of the proxy. In order to vote their shares in person at the meeting, shareholders that own their shares in "street name" must obtain a special proxy card from their broker.

The Board of Directors does not know of any matters other than the election of directors and the approval of an amendment to the Company's 1998 Stock Option Plan (the "Plan") to increase the aggregate number of shares available for issuance thereunder from 50,000 to 300,000 that are expected to be presented for consideration at the Annual Meeting. However, if other matters properly come before the meeting, the persons named in the accompanying proxy intend to vote thereon in accordance with their judgment.

ELECTION OF DIRECTORS

GENERAL INFORMATION

The present terms of the Company's current directors, Jong S. Whang, Robert T. Hass, Donald F. Johnston, Alvin Katz and Bruce R. Thaw, expire upon the election and qualification of their successors at the Company's 2001 Annual Meeting of Shareholders. The Board of Directors has nominated each of the current directors as nominees for election as directors in the election to be held at the Annual Meeting.

The Board of Directors intends to vote its proxies for the election of its nominees, for a term to expire at the next Annual Meeting. In that regard, the Board of Directors solicits authority to cumulate such votes.

If any nominee should become unavailable for any reason, which the Board of Directors does not anticipate, the proxy will be voted for any substitute nominee or nominees who may be selected by the Board of Directors prior to or at the Annual Meeting, or, if no substitute is selected by the Board of Directors prior to or at the Annual Meeting, for a motion to reduce the present membership of the Board to the number of nominees available and to create an additional vacancy to be filled by the Board of Directors. The information concerning the nominees and their share holdings in the Company has been furnished by them to the Company.

INFORMATION CONCERNING DIRECTORS AND OFFICERS

The following table sets forth information regarding the officers and directors (who are also director nominees) of the Company, including biographical data for at least the last five years.

<table> <caption></caption></table>		
NAME	AGE	POSITION WITH THE COMPANY
<s></s>	<c></c>	<c></c>
Jong S. Whang	55	President, Chief Executive Officer and Director
Robert T. Hass	51	Vice President-Finance, Chief Financial Officer, Treasurer, Secretary and Director

Donald F. Johnston	73	Director
Alvin Katz	71	Director
Bruce R. Thaw 		

 48 | Director |JONG S. WHANG has been President, Chief Executive Officer and a Director of the Company since its inception and was one of its founders. Mr. Whang's responsibilities as President include the sales effort for the Company's semiconductor equipment business and development of new products and business opportunities in that industry. He has twenty-seven years of experience in the semiconductor industry, including time spent in both processing and manufacturing of equipment components and systems. From 1973 until 1979, he was employed by Siltronics, Inc., initially as a technician working with chemical vapor deposition (CVD) and later as manager of the quartz fabrication plant with responsibility of providing technical marketing support. From 1979 until 1981, he was employed by U.S. Quartz, Inc. as manufacturing manager. In 1981 he left U.S. Quartz to found the Company.

ROBERT T. HASS has been Vice President-Finance, Chief Financial Officer, Treasurer and Secretary of the Company since June 3, 1992. Mr. Hass has served as a Director of the Company since February 29, 1996. From 1991 until May 1992, he operated a financial consulting practice under the name of Hass Financial Consulting Services, a sole proprietorship. From 1985 to 1991, Mr. Hass served as Director of Accounting Services and then Controller for Lifeshares Group, Inc., a holding company that owned and operated real estate development and insurance subsidiaries, and from 1988 to 1991 served as Controller and Chief Accounting Officer of some of Lifeshares Group's subsidiaries. From 1984 to 1985, he served as Vice President-Finance and Treasurer of The

Victorio Company, a privately owned holding company which owned and operated agriculture, chemical, commercial real estate brokerage, marketing research and commodities futures brokerage businesses. From 1977 to 1984, he was employed in various capacities including Vice President, Chief Financial Officer and Treasurer by Altamil Corporation, then a public company, which manufactures truck equipment, wire-bound containers, and precision aluminum forgings. From 1972 to 1977, he was employed as an auditor with Ernst & Ernst, now known as Ernst & Young. He is a Certified Public Accountant.

DONALD F. JOHNSTON has been a non-employee Director of the Company since April 9, 1994, and from March 1983 to December 1992. From 1985 to March 1993, he served as President and Chief Executive Officer of JAI, Inc., a management consulting firm. From 1985 to March 1993, when he retired, he acted as marketing and management consultant to companies in the electronics industry. From November 1983 until October 1985, he was President of Process Control, Inc. of Tempe, Arizona. He has held senior management positions with Montgomery Ward & Co. and the Hotpoint Division of the General Electric Company. He has also served as a Vice-President of B.F. Goodrich, Vice-President of Marketing of the Philco Ford Division of the Ford Motor Company and Executive Vice-President of CTV. Mr. Johnston also served as President and Chief Executive Officer of Mirco Electronics, Amstar Electronics and Hera Investment Co.

ALVIN KATZ has been a Director of the Company since May 1, 1995. Since 1981, he has been an adjunct professor of business management at the Florida Atlantic University in Boca Raton, Florida. From 1991 until the company was sold in September 1992, he was Chief Executive Officer of Odessa Engineering Corp., a company engaged in the manufacture of pollution monitoring equipment. From 1957 to 1976, Mr. Katz was employed by United Parcel Service holding various managerial positions, including District Manager and Corporate Manager of Operations Planning, Research and Development. He is also a Director of Blimpie International, a fast food franchiser, and Nastech Pharmaceutical Company, Inc., a company engaged in research, development and marketing of nasally delivered pharmaceuticals. Both are publicly traded companies.

BRUCE R. THAW has been a Director of the Company since May 1, 1995. He is currently the President and Chief Executive Officer of Bulbtronics, Inc., a national distributor of technical and specialty light sources and related products. Mr. Thaw is a practicing attorney and was admitted to the bar of the State of New York in 1978 and the California State Bar in 1983. He is also a Director of Safenet, Inc., a publicly traded company that designs, manufactures and markets computer network security systems and products, and Nastech Pharmaceutical Company, Inc., a publicly traded company engaged in drug delivery technology. Mr. Thaw does not render legal services to the Company.

BOARD AND COMMITTEE MEETINGS

During fiscal 2000, there were six (6) meetings of the Board of Directors. No director attended less than 75% of the Board meetings while serving as such director or less than 75% of all committee meetings on which he served as a committee member The Audit Committee, the Compensation and Option Committee and the Finance Committee are the standing committees of the Board of Directors. These committees are comprised as follows:

<TABLE> <CAPTION>

	COMPENSATION	
AUDIT	AND OPTION	FINANCE
<s></s>	<c></c>	<c></c>
B. R. Thaw	D.F. Johnston	A. Katz
D.F. Johnston	A. Katz	B. R. Thaw

 | |The Audit Committee held four (4) meetings during the 2000 fiscal year. The Audit Committee is responsible for maintaining communication between the Board, the Company's independent auditors and members of financial management with respect to the Company's financial affairs in general, including financial statements and audits, the adequacy and effectiveness of the Company's internal accounting controls and systems and the retention and termination of the independent auditors.

3

The Compensation and Option Committee held two (2) meetings during the 2000 fiscal year. The Compensation and Option Committee makes recommendations concerning officer compensation, employee benefit programs and retirement plans.

The Finance Committee held two (2) meetings during the 2000 fiscal year. The Finance Committee is responsible for communication between the Board, the Company's lender or prospective lender(s) and other financial sources and members of financial management.

All current committee members are expected to be nominated for re-election at a Board meeting to be held following the Annual Meeting of Shareholders. It is expected that Mr. Katz will also be nominated to the Audit Committee at that time.

COMPENSATION OF DIRECTORS

Directors who are full-time employees of the Company receive no additional compensation for serving as directors. Non-employee directors receive fees of \$700 per Board meeting attended and \$250 per committee meeting attended. Commencing in fiscal year 2001, non-employee directors also receive an annual fee of \$6,000. In addition, under the Company's Non-Employee Directors Stock Option Plan, each outside director receives an annual grant of options to purchase 3,000 shares of Common Stock. The exercise price of the options is the fair market value of Common Stock on the date of grant and each option has a term of ten years and becomes exercisable in three equal installments commencing on the first anniversary of the date of grant and continuing for the two successive anniversaries thereafter. In the event of disability (as defined in the plan) or death of an outside director, all options remain exercisable for a period of twelve months following the date such person ceased to be a director, but only to the extent such option was exercisable on the date the director ceased to be a director.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The Compensation and Option Committee is composed of Messrs. Johnston and Katz, neither of whom is an officer or employee of the Company.

EXECUTIVE COMPENSATION

The following table sets forth information regarding annual and long-term compensation for services rendered to the Company during the fiscal years ended September 30, 2000, 1999 and 1998 by the Company's Chief Executive Officer and the other most highly compensated executive officer of the Company who received annual compensation exceeding \$100,000 during such periods (collectively, the "Named Executive Officers").

SUMMARY COMPENSATION TABLE

<TABLE> <CAPTION>

		ANNUAL COMPEI	NSATION	LONG-TERM COMPENSATION		
NAME AND PRINCIPAL POSITION	FISCAL YEAR	SALARY(1)	BONUS (2)	OTHER ANNUAL COMPENSATION (3)	RESTRICTED STOCK AWARDS	ALL OTHER COMPENSATION (4)
<\$>	<c></c>	<c></c>	<c></c>	<c></c>	<c></c>	<c></c>
Jong S. Whang	2000	\$175 , 817	\$122 , 266			\$1,242
President and Chief	1999	130,200	12,292			
Executive Officer	1998	167,147				3,037

Robert T. Hass	2000	99 , 750	9,500	 	615
Vice President-	1999	85 , 500		 	
Finance	1998	96,105	7,245	 	2,123

 | | | | |_ _____

(1) For fiscal 1999, Mr. Whang voluntarily reduced his salary by 20% to \$130,200. Effective October 4, 1999, Mr. Whang's base salary was restored to that specified in his employment agreement. Effective October 4, 1998, Mr. Hass' annual salary was reduced to \$85,500. For fiscal 2000, this column includes an accrued retrospective salary increase of \$14,250.

4

- On February 24, 1989, the Board of Directors approved an incentive (2)compensation plan for Mr. Whang, which provides for an annual cash bonus equal to 2% of the annual profits of the Company before taxes and extraordinary items; plus 2% of the amount by which the revenues of the Company's semiconductor equipment business in each year exceed such revenues for the previous year. It is a condition to the payment of any bonus that Mr. Whang has been continually employed by the Company and that the Company has realized a profit after the payment of the bonus. On February 28, 1997, Mr. Whang entered into an employment contract with the Company, which contract incorporated Mr. Whang's incentive compensation plan and added additional bonus eligibility criteria. See "Employment Contracts with Executive Officers," below. The amount reflected in this column in fiscal 2000 for Mr. Whang includes a discretionary bonus of \$32,550, in addition to the \$\$89,716 earned in accordance with the incentive compensation plan described above.
- (3) Other compensation to Messrs. Whang and Hass, consisting of the use of a Company car, vacation pay and other perquisites, did not exceed \$50,000 or 10% of base compensation during any fiscal year covered by this table.
- (4) Amounts for Mr. Whang and Mr. Hass represent Company matching contributions in the Amtech 401(k) Plan.

OPTION GRANTS

There were no grants of stock options during fiscal year 2000 to the Named Executive Officers.

OPTION EXERCISES

The following table contains information regarding stock options exercised during the 2000 fiscal year by the Named Executive Officers.

AGGREGATED OPTION EXERCISES IN LAST FISCAL YEAR

AND FISCAL YEAR END OPTION VALUES

<TABLE> <CAPTION>

	Shares acquired on Value		Number Unexercised fiscal ye	options at	Value of unexercised in-the- money options at fiscal year-end	
Name	exercise	Realized	Exercisable	Unexercisable	Exercisable	Unexercisable
<s></s>	<c></c>	<c></c>	<c></c>	<c></c>	<c></c>	<c></c>
J.S. Whang	62,275	\$ 404,725	250	42,517	\$ 3,375	\$589,504
Robert T. Hass 						

 - 0 - | - 0 - | 1,750 | 4,500 | 24,280 | 62,433 |- -----

 Based on the closing price of the Company's Common Stock on September 30, 2000 of \$15.00 per share, as reported by the NASDAQ Stock Market.

EMPLOYMENT AGREEMENTS

On February 28, 1997, the Company entered into a five (5) year employment agreement with its President, Jong S. Whang. Under the terms of the agreement, Mr. Whang is entitled to an annual salary of \$170,900 on October 1, 1998, with annual increases of at least 5% to be determined by the Board of Directors at the end of each year of the agreement. Effective October 4, 1998, Mr. Whang voluntarily initiated a 20% reduction in his salary to \$130,200. In addition, he is entitled to receive annual incentive cash compensation of up to 50% of his base salary, to be calculated as follows: (i) a bonus equal to 2% of the annual earnings of the Company before taxes and extraordinary items, and (ii) a bonus equal to 2% of the amount by which the revenues of the Company in each fiscal year exceeds such revenues for the previous fiscal year. It is a condition to the payment of any cash bonus that Mr. Whang shall have been continuously employed by the Company and that the total of all cash and stock bonuses is limited to 10% of the Company's pre-tax earnings for that year. Profits are determined without taking into account the first \$3,200,000 expended or invested by the Company in the development of the proposed photo-assisted CVD product, which has been suspended. In addition, Mr. Whang was granted 103,792 stock options pursuant to the

5

agreement. These options were granted on February 28, 1997 and vest at the rate of 20% per full year of service over a five-year period. To the extent not already exercisable, the options become immediately exercisable upon: (i) the dissolution or liquidation of the Company or a reorganization, merger or consolidation in which all or substantially all prior shareholders do not continue to own more than 60% of the then outstanding shares of Common Stock and voting securities, (ii) the sale of all or substantially all of the assets of the Company, or (iii) the occurrence of a change in control of the Company as defined in the agreement. The agreement also contains confidentiality and non-compete provisions. If Mr. Whang is terminated other than for "cause," he is entitled to receive salary, incentive compensation and vacation accrued through the date of termination plus the greater of his then annual salary or the balance of his compensation to the end of the term of the employment agreement computed using the latest applicable salary rate without consideration of any salary reductions as severance pay. Mr. Whang is also entitled to participate in any benefit plans generally available to employees of the Company.

COMPENSATION AND OPTION COMMITTEE REPORT ON EXECUTIVE COMPENSATION

The Compensation and Option Committee of the Company's Board of Directors (the "Committee), which is composed entirely of independent, outside directors, establishes the general compensation policies of the Company and specific compensation for each executive officer of the Company, and administers the Company's stock option program. The Committee's intent is to make the compensation packages of the executive officers of the Company sufficient to attract and retain persons of exceptional quality, and to provide effective incentives to motivate and reward Company executives for achieving the financial and strategic goals of the Company essential to the Company's long-term success and growth in shareholder value. The Company's executive compensation package consists of three main components: base salary, incentive cash bonuses and stock options.

BASE COMPENSATION

The Committee's approach is to offer executives salaries competitive with those of other executives in the industry in which the Company operates. To that end, the Committee evaluates the competitiveness of its base salary based on information drawn from a variety of sources, including published and proprietary survey data and the Company's own experience recruiting and retaining executives, although complete information is not easily obtainable. The Company's base salary levels are intended to be consistent with competitive practice and level of responsibility, with salary increases reflecting competitive trends, the overall financial performance of the Company and the performance of the individual executive.

BONUSES

In addition to base salary, executives are eligible to receive a discretionary annual bonus. At the beginning of each year, the Committee and the Chief Executive Officer (the "CEO") review each individual executive's job responsibilities and goals for the upcoming year. The amount of the bonus and any performance criteria vary with the position and role of the executive within the Company. In addition, for all executives, the Committee reviews the Company's actual financial performance against its internally budgeted performance in determining year-end bonuses, if any. However, the Committee does not set objective performance targets for executives other than the CEO and sales and marketing personnel.

STOCK OPTION AND RESTRICTED STOCK GRANTS

The Company, from time to time, grants stock options and shares of restricted stock in order to provide certain executives with a competitive total compensation package and to reward them for their contribution to the long-term price performance of the Company's Common Stock. Grants of stock options and restricted stock are designed to align the executive's interest with that of the shareholders of the Company. In awarding option grants, the Committee will consider, among other things, the amount of stock and options presently held by the executive's anticipated future contributions and responsibilities.

2000 CEO COMPENSATION

The CEO's base salary for fiscal year 2000 was increased from an annual rate of \$170,900 earned for the five months ended February 28, 2000 to \$179,400 for the remainder of the fiscal year, pursuant to the terms of the February 28, 1997 employment agreement entered into by the Company and the CEO. The CEO's increased base salary is based upon the compensation of executives in comparable positions in the semiconductor industry, adjusted for the size of the Company (total assets and revenues).

On February 24, 1989, the Board of Directors approved an incentive compensation plan for the CEO, which provides for an annual cash bonus equal to 2% of the annual profits of the Company before taxes and extraordinary items; plus 2% of the amount by which the revenues of the Company's semiconductor equipment business in each year exceed such revenues for the previous year. It is a condition to the payment of any bonus that the CEO have been continually employed by the Company and that the total of such cash bonuses is limited to 10% of the Company's pre-tax earnings for that year. The CEO earned a bonus of \$89,716 in 2000 pursuant to such incentive compensation plan. The CEO's employment agreement with the Company incorporates the incentive compensation plan described above. See "Employment Contracts With Executive Officers," above.

Compensation and Option Committee

Donald F. Johnston Alvin Katz

REPORT OF AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee of the Board of Directors (the "Audit Committee") adopted a charter on June 1, 2000, and is responsible for, among other things, reviewing and discussing the audited financial statements with management, discussing with the Company's auditors information relating to the auditors' judgments about the quality of the Company's accounting principles, recommending to the Board of Directors that the Company include the audited financials in its Annual Report on Form 10-K and overseeing compliance with the Securities and Exchange Commission requirements for disclosure of auditors' services and activities.

REVIEW OF AUDITED FINANCIAL STATEMENTS

The Audit Committee has reviewed the Company's financial statements for the fiscal year ended September 30, 2000, as audited by Arthur Andersen LLP, the Company's independent auditors, and has discussed these financial statements with management. In addition, the Audit Committee has discussed with Arthur Andersen the matters required to be discussed by Statement of Auditing Standard 61 regarding the codification of statements on auditing standards. Furthermore, the Audit Committee has received the written disclosures and the letter from Arthur Andersen required by the Independence Standards Board Standard No. 1 and has discussed with Arthur Andersen its independence.

RECOMMENDATION

Based upon the foregoing review and discussion, the Audit Committee recommended to the Board of Directors that the audited financial statements for the fiscal year ended September 30, 2000 be filed with the Company's annual report on Form 10-K. The Charter for the Audit Committee is attached hereto as Appendix A.

MEMBERSHIP

The Audit Committee consists of Messrs. Thaw and Johnston.

Audit Committee of the Board of Directors

Bruce R. Thaw Donald F. Johnston

AUDIT FEES

For fiscal 2000, the aggregate professional fees for the annual audit and interim quarterly reviews performed by the Company's independent public accountants were \$88,000.

7

FINANCIAL INFORMATION SYSTEMS DESIGN AND IMPLEMENTATION FEES

During fiscal 2000, the Company did not engage its independent public accountants to perform financial information systems design and implementation.

ALL OTHER FEES OF INDEPENDENT PUBLIC ACCOUNTANTS

During fiscal 2000, all other fees of the Company's independent public

accountants amounted to \$83,000, which primarily related to the private placement completed by the Company in September 2000.

The audit committee of the Board of Directors considered whether the provision of non-audit services is consistent with maintaining the auditor's independence.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information concerning the beneficial ownership of the Company's Common Stock as of January 21, 2001, by (i) each director of the Company, (ii) each executive officer of the Company, including the Named Executive Officers, and (iii) all executive officers and directors of the Company as a group, and (iv) all other persons who beneficially own five percent (5%) or more of the Company's outstanding Common Stock. To the Company's knowledge, there is only one person known to the Company who beneficially owns five percent (5%) or more of the Company's outstanding Common Stock. This information was determined in accordance with Rule 13d-3 under the Securities Exchange Act of 1934, as amended, and is based upon the information furnished by the persons listed below. Except as otherwise indicated, each shareholder listed possesses sole voting and investment power with respect to the shares indicated as being beneficially owned.

<TABLE>

<caption< th=""><th>1></th></caption<>	1>

	NUMBER OF SHARES	PERCENT OF
NAME AND ADDRESS (1)(2)	BENEFICIALLY HELD (3)	OWNERSHIP (3)
<\$>	<c></c>	<c></c>
Jong S. Whang	106,214(4)	4.0%
Robert T. Hass	3,500(5)	*
Donald F. Johnston	2,625(6)	*
Alvin Katz	83,000(7)	3.1%
Bruce R. Thaw	13,000(7)	*
Directors and Executive Officers of	208,339(8)	7.9%
The Company as a group (5 persons)		
Robert Sussman	202,500(9)	7.7%

 | |- ------

* Less than 1%.

- (1) The address for directors and executive officers listed in this table is c/o Amtech Systems, Inc., 131 South Clark Drive, Tempe, Arizona 85281. Mr. Sussman's address is 520 Madison Avenue, 41st floor, New York, NY 10022
- (2) Mr. Whang is the Company's President, CEO and a director. Mr. Hass is the Vice President-Finance, Chief Financial Officer, Treasurer, Secretary and a director. Messrs. Johnston, Katz and Thaw are presently directors.
- (3) The share amounts and percentages shown include the shares of Common Stock actually owned as of January 21, 2001, and the shares of Common Stock with respect to which the person had the right to acquire beneficial ownership within 60 days of such date pursuant to options or warrants. All shares of Common Stock that the identified person had the right to acquire within 60 days of January 21, 2001, upon the exercise of options or warrants are deemed to be outstanding when computing the percentage of the securities owned by such person, but are not deemed to be outstanding when computing the percentage of the securities owned by any other person. The amounts and percentages are based upon 2,628,871 shares of Common Stock outstanding as of January 21, 2001.

(4) Includes (i) 9,488 shares held jointly with Mr. Whang's spouse and (ii) 21,759 shares issuable upon the exercise of presently exercisable options; 20,759 shares issuable at an exercise price of \$1.126 per share; the balance of 1,000 shares issuable at an exercise price of \$1.50 per share.

8

- (5) Includes 3,000 shares issuable upon exercise of presently exercisable options with an exercise price of \$1.126 per share.
- (6) Includes 2,000 shares issuable upon exercise of presently exercisable options; 1,000 shares issuable at an exercise price of \$1.50 per share and the balance of 1000 shares issuable at an exercise price of \$6.813 per share.
- (7) Includes 13,000 shares issuable upon exercise of presently exercisable options; 10,000 shares issuable at an exercise price of \$1.126 per share; 2,000 shares issuable at an exercise price of \$1.50 per share and the balance of 1,000 shares issuable at an exercise price of \$6.813

per share.

- (8) Includes 52,759 shares issuable upon exercise of presently exercisable options; 43,759 shares issuable at an exercise price of \$1.126 per share; 6,000 shares issuable at an exercise price of \$1.50 per share and the balance of 3,000 shares issuable at an exercise price of \$6.813 per share.
- (9) Includes 2,500 shares jointly owned with Mr. Sussman's spouse.

9 COMPLIANCE WITH SECTION 16(a) OF THE SECURITIES EXCHANGE ACT OF 1934

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires the Company's directors and executive officers, as well as persons beneficially owning more than 10% of the Company's outstanding Common Stock, to file certain reports of ownership with the Securities and Exchange Commission (the "SEC") within specified time periods. Such officers, directors and shareholders are also required by SEC rules to furnish the Company with copies of all Section 16(a) forms they file.

Based solely on its review of such forms received by it, or written representations from certain reporting persons, the Company believes that between October 1, 1999 and September 30, 2000 all Section 16(a) filing requirements applicable to its officers, directors and 10% shareholders were complied with.

COMPARISON OF STOCK PERFORMANCE

The following graph assumes that 100 was invested on October 1, 1994 in each of the following: the Company's Common Stock, the NASDAQ Composite Index and the NASDAQ Industrial Index.

[STOCK PERFORMANCE GRAPH]

<TABLE> <CAPTION>

	9/30/95	9/29/96	9/30/97	9/30/98	9/30/99	9/30/00
<s></s>	<c></c>	<c></c>	<c></c>	<c></c>	<c></c>	<c></c>
Amtech Systems, Inc.	\$100.00	\$104.11	\$ 58.90	\$ 16.44	\$ 21.92	\$164.38
NASDAQ Composite Index	\$100.00	\$117.57	\$161.54	\$162.32	\$263.16	\$351.96
NASDAQ Industrial Index	\$100.00	\$107.05	\$140.09	\$105.10	\$163.94	\$208.69

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CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The Company did not have any transactions during fiscal 2000 with any director, director nominee, executive officer, security holder known to the Company to own of record or beneficially more than 5% of the Company's Common Stock, or any member of the immediate family of any of the foregoing persons, in which the amount involved exceeded \$60,000.

APPROVAL OF AMENDMENT TO AMTECH SYSTEMS, INC. 1998 STOCK OPTION PLAN (PROPOSAL NO. 2)

GENERAL

At the Annual Meeting, the Company will seek shareholder approval of an amendment to the Company's 1998 Stock Option Plan (the "Plan") to increase the number of shares authorized for issuance thereunder from 50,000 to 300,000. The Board of Directors has approved the amendment to the Plan and has directed that the amendment be submitted as a proposal for shareholder approval at the Annual Meeting. The Plan was originally adopted in January 1998. As of the date of this Proxy Statement, an aggregate of 50,000 options have been granted under the 1998 Plan. THE BOARD OF DIRECTORS RECOMMENDS AND ENCOURAGES YOU TO VOTE "FOR" THE APPROVAL OF THE PROPOSAL TO AMEND THE PLAN.

AMENDMENT TO THE PLAN

10

In October 2000, the Board of Directors reviewed the options remaining in the option pool for the Plan and determined it was appropriate to increase the number of shares authorized for issuance under Plan. Therefore, the Board adopted an amendment to the Plan that would increase the number of shares authorized for issuance thereunder from 50,000 to 300,000. The Board believes that such increase is required to give the Company the ability to grant additional options to new and existing employees. The Plan is designed to induce 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.

SUMMARY OF THE PLAN

The following summary of the Plan does not purport to be complete, and is subject to and qualified in its entirety by reference to the text of the Plan.

Administration. The Plan is administered by the Board of Directors of the Company or a Committee appointed by the Board of Directors (hereinafter referred to as the "Board"). The Board has full authority, subject to the provisions of the Plan, to award incentive stock options and nonstatutory stock options "Options"). Subject to the provisions of the 1998 Plan, the Board determines in its sole discretion, among other things, the persons to whom from time to time Options may be granted ("Participants"), the number of shares subject to each Option, exercise prices under the Options, any restrictions or limitations on such Option including vesting, exchange, deferral, surrender, cancellation, acceleration, termination, or forfeiture provisions related to such Options. The interpretation and construction by the Board of any provisions of, or the determination of any questions arising under, the 1998 Plan, shall be final, conclusive and binding on all persons interested in the Plan.

Shares Subject to the Plan. The Plan currently authorizes the granting of Options the exercise of which would allow up to a maximum of 50,000 shares of the Common Stock to be acquired by the Participants of said Options. In order to prevent the dilution or enlargement of the rights of the Participants under the Plan, the number of shares of Common Stock authorized by the Plan and the number of shares subject to outstanding options are subject to adjustment in the event of any increase or decrease in the number of shares of outstanding Common Stock resulting from a stock dividend, stock split, combination of shares, merger, reorganization, consolidation, recapitalization or other change in the corporate structure affecting the Company's capital stock. If any Option granted under the Plan is forfeited or terminated, the shares of Common Stock that were underlying such Option shall again be available for distribution in connection with Options subsequently granted under the Plan.

Eligibility. Subject to the provisions of the Plan, Options may be granted to full-time employees of the Company or its subsidiaries.

Effective Date and Term of Plan. The Plan was approved by the Company's Board of Directors on February 27, 1998, and was deemed effective January 31, 1998, the date on which it was adopted by the Board of Directors. No option may be granted after January 30, 2008. The Plan will terminate ten (10) years after the effective date of the Plan, subject to earlier termination by the Board. No Option may be granted under the Plan after the termination date, but Options previously granted may extend beyond such date.

Nature of Options. The Plan provides for the grant of options, which may be non-qualified options, incentive stock options, or any combination of the foregoing. In general, options granted under the Plan are not transferable and expire eleven (11) years after the date of grant (ten years in the case of incentive stock options). The per share exercise price of an incentive stock option granted the Plan may not be less than the fair market value of the Common Stock on the date of grant. Incentive stock options granted to persons who have voting control over 10% or more of the Company's capital stock are granted at 110% of the fair market value of the underlying shares on the date of grant and expire five years after the date of grant.

11

Exercise of Options. The Plan provides the Board with the discretion to determine when options granted thereunder will become exercisable. Generally, such options may be exercised after a period of time specified by the Board at any time prior to expiration, so long as the optionee remains employed by the Company. No option granted under the Plan is transferable by the optionee other than by will or the laws of descent and distribution, and each option is exercisable during the lifetime of the optionee only by the optionee.

Agreements. Options granted under the Plan will be evidenced by agreements consistent with the Plan in such form as the Board may prescribe. Neither the Plan nor agreements thereunder confer any right to continued employment upon any Participant.

Amendments to the Plan. The Board may at any time, and from time to time, amend, modify or terminate any of the provisions of the Plan, but no amendment, modification or termination shall be made which would impair the rights of a Participant under any agreement theretofore entered into pursuant to an Option grant, without the Participant's consent.

Federal Income Tax Considerations. The discussion that follows is a summary, based upon current law, of some of the significant federal income tax considerations relating to awards under the Plan. The following discussion does not address state, local or foreign tax consequences.

A Participant in the Plan will not recognize taxable income upon the grant or exercise of an incentive stock option except under certain

circumstances when the exercise price is paid with already-owned shares of Common Stock that were acquired through the previous exercise of an incentive stock option. However, upon the exercise of an incentive stock option, the excess of the fair market value of the shares received on the date of exercise over the exercise price of the shares will be treated as a tax preference item for purposes of the alternative minimum tax. In order for the exercise of an incentive stock option to qualify for the foregoing tax treatment, the Participant generally must be an employee of the Company from the date the incentive stock option is granted through the date three months before the date of exercise, except in the case of death or disability, where special rules apply. The Company will not be entitled to any deduction with respect to the grant or exercise of an incentive stock option.

If shares acquired upon exercise of an incentive stock option are not disposed of by the Participant within two years from the date of grant or within one year after the transfer of such shares to the Participant (the "ISO Holding Period"), then (i) no amount will be reportable as ordinary income with respect to such shares by the Participant or recipient and (ii) the Company will not be allowed a deduction in connection with such incentive stock option or the Common Stock acquired pursuant to the exercise of the incentive stock option. If a sale of such Common Stock occurs after the ISO Holding Period has expired, then any amount recognized in excess of the exercise price will be reportable as a long-term capital gain, and any amount recognized below the exercise price will be reportable as a long-term capital loss. The exact amount of tax payable on a long-term capital gain will depend upon the tax rates in effect at the time of the sale. The ability of a Participant to utilize a long-term capital loss will depend upon the Participant's other tax attributes and the statutory limitations on capital loss deductions not discussed herein. To the extent that alternative minimum taxable income was recognized on exercise of the incentive stock option, the basis in the Common Stock acquired may be higher for determining a long-term capital gain or loss for alternative minimum tax purposes.

A "disqualifying disposition" will result if Common Stock acquired upon the exercise of an incentive stock option (except in the circumstances of a decedent's incentive stock option as described below) is sold before the ISO Holding Period has expired. In such case, at the time of a disqualifying disposition (except in the case if a Participant subject to Section 16 restrictions of the 1934 Act, as noted below), the Participant will recognize ordinary income in the amount of the difference between the exercise price and the lesser of (i) the fair market value on the date of exercise or (ii) the amount realized on disposition. If the amount realized on the sale is less than the exercise price, then the Participant will recognize no ordinary income, and the recognized loss will be reportable as a short-term capital loss. The Participant will report as a short-term capital gain, as applicable, any amount recognized in excess of the fair market value on the date of exercise, and the Company will be allowed a deduction on its federal income tax return in the year of the disqualifying disposition equal to the ordinary income recognized by the Participant. To the extent that alternative minimum taxable income was recognized on exercise of the incentive

12

stock option, the basis in the Common Stock acquired may be higher for determining a short-term capital gain or loss for alternative minimum tax purposes.

The general rules discussed above are different if the Participant disposes of the shares of Common Stock in a disqualifying disposition in which a loss, if actually sustained, would not be recognized by the Participant. Examples of these dispositions include gifts or sales to related parties such as members of the Participant's family and corporations or entities in which the Participant owns a majority equity interest. In such circumstances, the Participant would recognize ordinary income equal to the difference between the exercise price of the Common stock and the fair market value of the Common Stock on the date of exercise. The amount of ordinary income could not be limited by the price at which the Common Stock was actually sold by the Participant.

If the Participant retires or otherwise terminates employment with the Company, other than by reason of death or permanent and total disability, an incentive stock option must be exercised within three months of such termination in order to be eligible for the tax treatment of the incentive stock options described above, provided the ISO Holding Period requirements are met. If a Participant terminates employment because of a permanent and total disability, the incentive stock option will be eligible for such treatment if it is exercised within one year of the date of termination of employment, provided the ISO Holding Period requirements are met. In the event of a Participant's death, the incentive stock option will be eligible for such treatment if exercised by the Participant's legatees, personal representatives or distributees within one year from the date of death, provided that the death occurred while the Participant was employed, within three months of the date of termination of employment or within one year following the date of termination of employment because of permanent and total disability.

In general, a Participant to whom a nonqualified option is granted will recognize no taxable income at the time of the grant. Upon exercise of a

nonqualified option, the Participant will recognize ordinary income in an amount equal to the amount by which the fair market value of the Common Stock on the date of exercise exceeds the exercise price of the nonqualified option, and the Company will generally be entitled to a deduction equal to the ordinary income recognized by the Participant in the year the participant recognizes ordinary income, subject to the limitations of Section 162 (m) of the Code.

For purposes of the "alternative minimum tax" applicable to individuals, the exercise of an incentive stock option is treated in the same manner as the exercise of a nonqualified option. Thus, a Participant must, in the year of option exercise, include the difference between the exercise price and the fair market value of the stock on the date of exercise in alternative minimum taxable income. The alternative minimum tax is imposed upon an individual's alternative minimum taxable income currently, but only to the extent that such tax exceeds the taxpayer's regular income tax liability for the taxable year.

The Company is required to withhold certain income taxes from Participants upon exercises of nonqualified options. The Company will be entitled to a business expense deduction for both financial statement and federal income tax purposes equal to the ordinary income recognized by the Participant in the year the Participant recognizes ordinary income from the exercise of nonqualified options.

In addition to the foregoing federal tax consequences, the exercise, ultimate sale or other disposition of options by Participants will in most cases be subject to state income taxation.

VOTE REQUIRED

Assuming a quorum consisting of a majority of all of the outstanding shares of Common Stock is present, in person or by proxy, at the Annual Meeting, the affirmative vote of the holders of a majority of the shares present, in person or by proxy, at the Annual Meeting, is required to approve the proposed amendment to the Plan. If you abstain or if you hold your shares in "street name" and fail to sign, date and return the enclosed proxy card, it will have the same effect as a vote against this proposal.

THE BOARD OF DIRECTORS RECOMMENDS AND ENCOURAGES YOU TO VOTE "FOR" THE APPROVAL OF THE AMENDMENT TO THE PLAN.

INDEPENDENT AUDITORS

13

Arthur Andersen LLP ("Andersen") has been selected as the independent public accountants for the Company for the fiscal year ending September 30, 2001. Andersen has audited the Company's financial statements since 1983. A representative of Andersen is expected to be present at the Annual Meeting with the opportunity to make a statement if he or she so desires and to be available to respond to appropriate questions.

OTHER MATTERS

ANNUAL REPORT

The Annual Report of the Company for the fiscal year ended September 30, 2000, is enclosed herewith.

VOTING BY PROXY

In order to ensure that your shares will be represented at the Annual Meeting, please sign and return the enclosed Proxy in the envelope provided for that purpose, whether or not you expect to attend. Any shareholder may, without affecting any vote previously taken, revoke a written proxy by giving notice of revocation to the Company in writing or by executing and delivering to the Company a later dated proxy.

SHAREHOLDER PROPOSALS FOR ACTION AT THE COMPANY'S NEXT ANNUAL MEETING

Any shareholder who wishes to present any proposal for shareholder action at the next Annual Meeting of Shareholders to be held in 2002, must be received by the Company's Secretary, at the Company's offices, not later than October 12, 2001, in order to be included in the Company's proxy statement and form of proxy for that meeting. Such proposals should be addressed to the Corporate Secretary, Amtech Systems, Inc., 131 South Clark Drive, Tempe, Arizona 85281. If a shareholder proposal is introduced at the 2002 Annual Meeting of Shareholders without any discussion of the proposal in the Company's proxy statement, and the shareholder does not notify the Company on or before December 26, 2001, as required by SEC Rule 14(a)-4(c)(1), of the intent to raise such proposal at the Annual Meeting will be voted by the persons named in such proxies in their discretion with respect to such proposal. Notice of such proposal is to be sent to the above address. /s/ Robert T. Hass
Robert T. Hass, Secretary

Tempe, Arizona February 19, 2001

14

AMTECH SYSTEMS, INC.

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS OF AMTECH SYSTEMS, INC. FOR THE ANNUAL MEETING OF SHAREHOLDERS

The undersigned shareholder of Amtech Systems, Inc., an Arizona corporation (the "Company"), hereby acknowledges receipt of the Notice of Annual Meeting of Shareholders dated February 19, 2001, and hereby appoints Jong S. Whang or Robert T. Hass and each of them, proxies and attorneys-in-fact, with full power of substitution, on behalf and in the name of the undersigned, to represent the undersigned at the Annual Meeting of Shareholders of AMTECH SYSTEMS, INC. to be held at the Hilton Phoenix Airport Hotel, 2435 South 47th Street, Phoenix, Arizona on March 15, 2001, at 9:00 a.m., Mountain Standard time, and at any adjournment(s) or postponement(s) thereof, and to vote all shares of Common Stock that the undersigned would be entitled to vote if then and there personally present, on the matters set forth below.

1. ELECTION OF DIRECTORS

[] FOR all nominees listed below (except as marked to the contrary below):

<TABLE> <pr

[] WITHHOLD AUTHORITY to vote for all nominees listed above

INSTRUCTIONS: To withhold authority to vote for any individual nominee, write that nominee's name in the space provided below:

The undersigned agrees that the proxy holder is authorized to cumulate votes in the election of directors and to vote for less than all of the nominees.

 APPROVAL OF THE AMENDMENT TO THE AMTECH SYSTEMS, INC. 1998 STOCK OPTION PLAN TO INCREASE THE NUMBER OF SHARES AVAILABLE FOR ISSUANCE THEREUNDER FROM 50,000 TO 250,000.

[] FOR [] AGAINST [] ABSTAIN

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED IN THE MANNER DIRECTED HEREIN BY THE UNDERSIGNED SHAREHOLDER. IF NO DIRECTION IS MADE, THIS PROXY WILL BE VOTED FOR THE ELECTION OF THE NOMINEES NAMED ABOVE AND AS SAID PROXIES DEEM ADVISABLE ON SUCH MATTERS AS MAY COME BEFORE THE MEETING.

Dated: -----, 2001

Please sign exactly as your name appears above. When shares are held in common or in joint tenancy, both should sign. When signing as attorney, as executor, administrator, trustee or guardian, please give full title as such. If a corporation, sign in full corporate name by President or other authorized officer. If a partnership, please sign in partnership name by an authorized person.

Signatures:

Please return in the enclosed, postage-paid envelope. I [] Will [] Will not attend the Meeting.