

**DEFINITIVE PROXY STATEMENT**

**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 (Amendment No. \_\_\_)

Filed by the Registrant R  
Filed by a Party other than the Registrant c

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Under Rule 14a-12

**AMTECH SYSTEMS, INC.**

(Name of Registrant as Specified in its Charter)

N/A

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

R 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):

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(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

**NOTICE OF ANNUAL MEETING OF SHAREHOLDERS  
TO BE HELD ON MARCH 15, 2012**

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To Our Shareholders:

The 2012 Annual Meeting of Shareholders of AMTECH SYSTEMS, INC., an Arizona corporation (the "Company"), will be held at the Hilton Phoenix Airport Hotel, 2435 South 47<sup>th</sup> Street, Phoenix, Arizona, USA, on Thursday, March 15, 2012, at 9:00 a.m., Arizona time, for the following purposes:

1. To elect seven (7) directors to serve for one-year terms or until their successors are elected and qualified;
2. To ratify the appointment of Mayer Hoffman McCann P.C. as the Company's independent registered public accountants for the fiscal year ending September 30, 2012;
3. To hold an advisory vote approving the compensation of the Company's named executive officers;
4. To hold an advisory vote on the frequency of the vote on the compensation of the Company's named executive officers; and
5. To transact such other business as may properly come before the meeting or its adjournment.

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.

**Important Notice Regarding the Availability of  
Proxy Materials for the Meeting**

The proxy statement and annual report to security holders are also available at <http://www.amtechsystems.com/proxy.htm>. The materials available on this website include this notice, the proxy statement, the proxy card and our annual report on Form 10-K.

The Board of Directors has fixed the close of business on January 18, 2012 as the record date (the "Record Date") for the determination of shareholders who hold the Company's common stock who are entitled to notice of, and to vote at, the Annual Meeting or any postponement or adjournment thereof. Shareholders are reminded that their shares of the Company's common stock can be voted at the annual meeting only if they are present at the Annual Meeting in person or by valid proxy. A copy of the Company's 2011 Annual Report, which includes our 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:



Bradley C. Anderson, Secretary

Tempe, Arizona  
January 23, 2012

**IMPORTANT: IT IS IMPORTANT THAT YOUR SHARES 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.**

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**PROXY STATEMENT**

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The Board of Directors of Amtech Systems, Inc., an Arizona corporation (the "Company"), is soliciting proxies to be used at the 2012 Annual Meeting of Shareholders of the Company to be held on Thursday, March 15, 2012, at 9:00 a.m., Arizona 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 will be mailed to all shareholders entitled to vote at the Annual Meeting beginning January 26, 2012.

**Who Can Vote**

Shareholders of record as of the close of business on January 18, 2012 (the "Record Date"), may vote at the Annual Meeting and at any and all adjournments or postponements of the meeting. On the Record Date, 9,478,457 shares of the Company's common stock, \$.01 par value ("Common Stock") were issued and outstanding.

**What Constitutes a Quorum**

The presence, in person or by proxy, of the holders of a majority of the voting power of the outstanding shares of Common Stock entitled to vote is necessary to constitute a quorum at the Annual Meeting. Abstentions and broker non-votes are included in the number of shares present at the meeting for purposes of determining a quorum. A broker "non-vote" occurs when a nominee holding shares for a beneficial owner does not vote on a particular proposal because the nominee does not have discretionary voting power for that particular item and has not received instructions from the beneficial owner.

**How to Attend the Meeting**

If you are a shareholder of record, which means you hold your shares in your name, you may attend the meeting. If you own shares in the name of a bank, broker or other holder of record ("street name"), you will need to ask your broker or bank for a copy of the proxy they received from us. You will need to bring the proxy with you to the Annual Meeting.

**How to Vote**

If you are a shareholder of record, you may vote by mail or in person. To vote by mail, sign, date and return your proxy card in the enclosed postage-paid envelope. All valid proxies received before the Annual Meeting, and not properly revoked, will be exercised. If you sign and return your proxy card, but do not give voting instructions and authority to vote is not specifically withheld, the shares represented by that proxy will be voted as recommended by our Board of Directors. If you have specified a choice with respect to any matter to be acted upon, the shares will be voted in accordance with the specifications so made. The accompanying form of proxy solicited by the Board of Directors confers discretionary authority to cumulate votes with respect to the election of directors. Unless you have specified on the proxy card how you want your shares voted with respect to the election of directors, the proxy agents intend to cumulatively vote all of the shares covered by the proxies solicited by this Proxy Statement in favor of the number of nominees named in this Proxy Statement as they may, in their discretion, determine is required to elect the maximum number of nominees named in this Proxy Statement.

All shareholders may vote in person at the Annual Meeting (unless they are street name holders without a legal proxy). If your shares are held in street name, you will receive instructions from the holder of record that you must follow in order for your shares to be validly voted.

We are not aware of any other matters to be presented at the Annual Meeting, except those described in this Proxy Statement. However,

if any other matters not described in this Proxy Statement are properly presented at the Annual Meeting, the proxies will use their own judgment to determine how to vote your shares. If the Annual Meeting is adjourned, your Common Stock may be voted by the proxies on the new meeting date as well, unless you have revoked your proxy prior to that time.

### **What are the Voting Rights of Holders of Common Stock**

Except as set forth below with respect to the ability to cumulate votes for directors, the holders of Common Stock will be entitled to one vote per share of Common Stock.

### **What Vote is Required to Approve Each Item**

If a quorum is present, the seven nominees who receive a plurality of the votes cast at the Annual Meeting will be elected. Broker non-votes and votes that are withheld will have no effect on the results of the vote for the election of directors. If a quorum is present, a majority of votes cast by holders of Common Stock represented and entitled to vote at the Annual Meeting will constitute a ratification of the appointment of Mayer Hoffman McCann P.C. as the Company's independent registered public accountants.

Approval of the advisory vote on the compensation of our named executive officers requires the affirmative vote of a majority of the shares of common stock present or represented at the Annual Meeting and entitled to vote. With respect to the advisory vote on the frequency of the vote on the compensation of our named executive officers, the option of one year, two years or three years that receives the highest number of votes cast by stockholders present or represented at the Annual Meeting and entitled to vote will be the frequency for the advisory vote on executive compensation. Because both votes are advisory, they will not be binding upon the Board of Directors. However, the Compensation and Stock Option Committee will take into account the outcome of the votes when considering future executive compensation arrangements and when considering the frequency of the advisory vote on named executive officer compensation.

### **Changing Your Vote**

You may revoke your proxy at any time before it is exercised in one of three ways:

- By delivering to our offices, to the attention of our Corporate Secretary prior to the vote at the Annual Meeting, a written instrument of revocation bearing a date later than that of the proxy;
- By duly executing and delivering to our offices, to the attention of our Corporate Secretary prior to the vote at the Annual Meeting, a proxy for the same shares bearing a later date.; or
- By voting by ballot at the Annual Meeting, provided that the shareholder notifies our Corporate Secretary at the Annual Meeting of his or her intention to vote in person at any time prior to the voting of the proxy.

### **How Votes are Counted**

Inspectors of election will be appointed for the Annual Meeting. The inspectors of election will determine whether or not a quorum is present and will tabulate votes cast by proxy or in person at the Annual Meeting. If you have returned valid proxy instructions or attend the Annual Meeting in person, your Common Stock will be counted for the purpose of determining whether there is a quorum. Abstentions and broker non-votes will be included in the determination of the number of shares represented for a quorum. Generally, broker non-votes occur when a beneficial owner does not provide instructions to their broker with respect to a matter on which the broker is not permitted to vote without instructions from the beneficial owner. In tabulating the voting result for any particular proposal, shares that constitute broker non-votes are not considered entitled to vote or votes cast on that proposal. Accordingly, broker non-votes will not affect the outcome of any matter being voted on at the meeting, assuming that a quorum is obtained.

### **Costs of this Proxy Solicitation**

We will pay the costs of preparing and mailing the Notice and Proxy Statement, including the charges and expenses of brokerage firms, banks and others who forward solicitation material to beneficial owners of the Common Stock. We will solicit proxies by mail. Officers and directors of the Company may also solicit proxies personally, or by telephone or facsimile, without additional compensation. We have not retained any outside party to assist in the solicitation of proxies; however, we have retained Computershare Trust Company,

N.A. and Broadridge Financial Solutions, Inc. to provide certain administrative services in connection with the proposals in this Proxy Statement, including coordinating the distribution of proxy materials to beneficial owners of Common Stock, contacting stockholders to ensure they have received this Proxy Statement and overseeing the return of proxy cards.

### **Annual Report**

The Company's Annual Report to Shareholders for the fiscal year ended September 30, 2011 (the "Annual Report") has been mailed concurrently with the mailing of the Notice of Annual Meeting and Proxy Statement to all shareholders entitled to notice of, and to vote at, the Annual Meeting. The Annual Report is not incorporated into this Proxy Statement, and is not considered proxy-soliciting material.

The information contained in the "Report of Compensation and Stock Option Committee" and "Audit Committee Report" shall not be deemed "filed" with the Securities and Exchange Commission or subject to Regulations 14A or 14C or to the liabilities of Section 18 of the Securities Exchange Act of 1934, and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

## PROPOSAL NO. 1 – ELECTION OF DIRECTORS

### Number of Directors to be Elected

Our Board of Directors will consist of seven members. Each director elected will hold office for one year or until his successor is elected and qualified. If any director resigns, or otherwise is unable to complete his term in office, our Board may elect another director for the remainder of the resigning director's term.

### Vote Required

The seven nominees receiving the highest number of votes cast at the Annual Meeting will be elected. There is cumulative voting in the election of directors. This means that each holder of Common Stock 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 seven (the number of persons nominated for election as directors) multiplied by the number of shares of Common Stock held by 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. In order to exercise cumulative voting, the voting shareholder must complete the proxy card and indicate cumulative voting in accordance with the instructions included on the proxy card.

### Nominees of the Board

Our Board of Directors is responsible for supervision of the overall affairs of the Company. Our Board has nominated the following individuals to serve on our Board of Directors for the following year:

Michael Garnreiter  
Alfred W. Giese  
Egbert J. G. Goudena  
SooKap Hahn  
Robert F. King  
Fokko Pentinga  
Jong S. Whang

Each of these nominees currently serves on our Board of Directors, and has agreed to be named in this Proxy Statement and to serve if elected. See below for information regarding each of the nominees.

There are no family relationships among any of the Company's directors or executive officers.

Our Board of Directors recommends a vote FOR the election of the seven nominees under Proposal No. 1. Our Board of Directors intends to vote its proxies for the election of the nominees, for a term to expire at the next Annual Meeting. In that regard, our Board of Directors solicits authority to cumulate such votes.

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

## Information Concerning Directors and Executive Officers

The following table sets forth information regarding the executive officers and directors of Amtech. The subsequent paragraphs contain biographical data for each executive officer and director.

| <u>Name</u>          | <u>Age</u> | <u>Position with the Company</u>   |
|----------------------|------------|--|
| Jong S. Whang        | 66         | Executive Chairman and Director  |
| Fokko Pentinga       | 56         | President, Chief Executive Officer and Director*                                     |
| Bradley C. Anderson  | 50         | Executive Vice President – Finance, Chief Financial Officer, Treasurer and Secretary |
| Robert T. Hass       | 61         | Vice President and Chief Accounting Officer  |
| Jeong Mo Hwang       | 59         | Vice President and Chief Technology Officer  |
| Michael Garnreiter   | 59         | Director   |
| Alfred W. Giese      | 73         | Director   |
| Egbert J. G. Goudena | 62         | Director   |
| SooKap Hahn          | 63         | Director   |
| Robert F. King       | 78         | Director   |

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\* On September 29, 2011 Fokko Pentinga was promoted to Chief Executive Officer. Previous Chief Executive Officer and Chairman of the Board, Jong S. Whang, has been elected Executive Chairman and will retain his current position as Chairman of the Board. These changes were effective January 1, 2012.

**Jong S. Whang** has been a Director since our inception in 1981, and Mr. Whang was one of our founders. Mr. Whang served as our Chief Executive Officer since our inception until January 1, 2012 when Mr. Pentinga was promoted to that position. Effective as of January 1, 2012, Mr. Whang serves as our Executive Chairman and Chairman of the Board. Also, Mr. Whang had served as our President until March 2010 when Mr. Pentinga was promoted to that position. Mr. Whang's responsibilities include the sales and marketing effort for our solar and semiconductor equipment business and the development of new products and business opportunities in those industries. He has 36 years of experience in the solar and semiconductor industries, 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, 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 form Amtech. Mr. Whang brings extensive senior management experience and knowledge of our Company and the markets we serve to the Board of Directors. Mr. Whang is also uniquely positioned to provide the Board of Directors with in-depth and timely information about Company operations and with insight as to his strategic vision for the Company.

**Fokko Pentinga** has been our President since March 2010. Retaining the position of President, effective January 1, 2012, Mr. Pentinga also serves as our Chief Executive Officer. From December of 2008 until his promotion to President in March 2010, Mr. Pentinga served as Managing Director of Amtech Europe, which is comprised of the Company's two European subsidiaries, Tempress Systems ("Tempress") in Vaassen, the Netherlands, and R2D Automation ("R2D") near Montpellier, France. During that time Mr. Pentinga also served as General Manager of Tempress (a position he held for 15 years) and President of R2D (a position he held for two years). Mr. Pentinga has over 30 years of experience in the semiconductor and solar industries. The Board of Directors expects to benefit significantly from Mr. Pentinga's participation due to his extensive experience in the company and in the markets we serve.

**Bradley C. Anderson** joined us as Vice President-Finance, Chief Financial Officer, Treasurer and Secretary in April 2006. Prior to that, Mr. Anderson spent several years in a consulting role implementing the internal control requirements of the Sarbanes-Oxley Act for a broad range of publicly held companies. From 1996 to 2002, Mr. Anderson served as Vice President-Finance and then as Chief Financial Officer of Zila, Inc., an international provider of healthcare technology and products. Mr. Anderson began his career with Deloitte (formerly Deloitte & Touche) where he worked for over 11 years. He graduated from Brigham Young University with a Bachelor of Science in Accounting. Mr. Anderson is a Certified Public Accountant.



**Robert T. Hass** has been our Chief Accounting Officer, Assistant Treasurer and Assistant Secretary since April 2006. Prior to that, he served as our Vice President - Finance, Chief Financial Officer, Treasurer and Secretary from June 1992 to April 2006, and as Director from February 1996 to March 2006. From 1991 until May 1992, he operated a financial consulting practice. From 1985 to 1991, Mr. Hass was Director of Accounting Services and then Controller for Lifeshares Group, Inc., and from 1988 to 1991, was Controller and Chief Accounting Officer of some of Lifeshares' subsidiaries. From 1984 to 1985, he was Vice President - Finance and Treasurer of The Victorio Company. From 1977 to 1984, he served in various capacities including Vice President, Chief Financial Officer and Treasurer of Altamil Corporation, then a public diversified manufacturing company. From 1972 to 1977, he was an auditor with Ernst & Ernst, now known as Ernst & Young. He has a Bachelor of Science degree in Accounting from Indiana University. Mr. Hass is a Certified Public Accountant.

**Jeong Mo Hwang, Ph.D.** has been the Vice President and Chief Technology Officer of the Company since April 2011. Dr. Hwang was a Director from June 2009 until he resigned in April 2011. Dr. Hwang most recently served as Director of Process Engineering in charge of magnetic memory process technology development for Magsil Corp. from 2009 to 2010. He received a Ph.D. in electrical engineering from Arizona State University where his graduate research related to modeling high-level light illumination effects on solar cell efficiency. He has over 20 years of solar and semiconductor technology experience. From 2008 to 2009, Dr. Hwang was a senior manager in charge of NOR flash periphery device development for Spansion Inc. He was Director of Process Engineering for Simtek Corp. from 2005 to 2008, managing the development of non-volatile SRAM products. From 2000 to 2004, he was VP of Research and Development for Dongbu-Anam Semiconductor Inc. and led the development teams for standard CMOS logic processes as well as other specialty technologies. Prior to 2000, Dr. Hwang held engineering, and technology leadership positions with leading semiconductor companies, LG Semicon Co., Texas Instruments and Westinghouse. Dr. Hwang also has a Masters of Science degree in Electrical Engineering from Korea Advanced Institute of Science and Technology and a Bachelors degree in Electronics Engineering from Pusan National University in Korea. Dr. Hwang's engineering expertise allowed him to provide the Board of Directors with insight into the technological aspects of the Company's business, including research and development.

**Michael Garnreiter** has been a Director since February 2007. He is currently a managing director of Fenix Financial Forensics, a Phoenix-based financial consulting firm. From August 2006 until January 2010, he was a managing member of Rising Sun Restaurant Group LLC and from December 2008 until December 2009, he was president of New Era Restaurants, LLC, both of which are privately held restaurant operating companies. Mr. Garnreiter serves on the boards of directors of Taser International, a manufacturer of non-lethal protection devices, Knight Transportation Company, a nationwide truckload transportation company, and IA Global, Inc., an Asian business processes outsourcing company. From 2002 to 2006, Mr. Garnreiter was CFO of Main Street Restaurant Group, a publicly traded restaurant operating company, and from 1976 to 2002, he was a senior audit partner of Arthur Andersen LLP. He graduated from California State University Long Beach with a Bachelor of Science in Accounting and Business Administration. Mr. Garnreiter is a Certified Public Accountant and Certified Fraud Examiner. Mr. Garnreiter's financial background and expertise allows him to provide valuable advice to the Board of Directors and to the Company's Audit Committee as well as the Company's Nominating and Governance Committee.

**Alfred W. Giese** has been a Director since April 2007. Since 2001, Mr. Giese has been the Senior Partner of IBC, International Business Consultants where, between 2001 and 2006, he focused on sales and marketing for Aviza Technology Corporation, a semiconductor equipment manufacturer. He also assembled and managed a sales and marketing team for Epion Corporation, a high-technology equipment company which was acquired by TEL (Tokyo Electron Ltd.). From 1998 to 2001, he was the Vice President, Sales for Silicon Valley Group, or SVG, with responsibility for both Asia and Europe. From 1988 to 1998, Mr. Giese held positions of Vice President of Sales with Thermco Systems, Corp. and SVG, both semiconductor equipment companies. Prior to 1988, he held various sales positions for Thermco. For several years during that time, he served on the Board of Directors of Thermco's joint venture company in Japan. Mr. Giese has a degree in International Business from the Fachhochschule in Essen, Germany. Due to Mr. Giese's extensive sales and marketing experience, specifically in the areas of technology relevant to the Company, Mr. Giese is able to provide the Board of Directors with valuable advice in those areas. Mr. Giese also provides the Board of Directors with financial advice as a member of the Company's Audit Committee.

**Egbert J. G. Goudena** has been a Director since December 2009. Since 1987, Mr. Goudena has been the operations manager of the research labs of the Delft Institute of Microsystems and Nanoelectronics (DIMES) of the Delft University of Technology in The Netherlands. His responsibilities include managing the logistics and infrastructure of the research labs including prototyping and small-scale production. DIMES was established in 1987 and is a strong international center of excellence providing experimental research in many technology areas, including solar cells. In 2008, Mr. Goudena co-founded ISZGRO Diodes, a company that was formed to deliver logistics services to technology companies and to produce extreme ultraviolet (EUV) detectors. Mr. Goudena received a Bachelor of Engineering degree in Chemical Technology from the H.T.S. Wegstraat in The Hague. Mr. Goudena's experience in research and

technology allows him to advise the Board of Directors with respect to the Company's research and development activities, which are key components of the Company's business strategies.

**SooKap Hahn, Ph.D.** has been a Director since April 2011. Since 1997, Dr. Hahn has managed SKW Associates, Inc. which provides standard characterization products for the chemical-mechanical polishing process used in the semiconductor manufacturing industry. In 1995 and 1996, he was a technical advisor for the Ministry of Science and Technology in Brazil. He was a distinguished guest professor at Helsinki University in 1986 and at Universidade de Sao Paulo in Sao Paulo, Brazil in 1994 and 1995. Dr. Hahn brings more than 30 years of semiconductor experience to Amtech's Board. He obtained his M.S. and Ph.D. degrees in Materials Science and Engineering from Stanford University in 1975 and 1978, respectively, and in 1991 joined Stanford University's faculty as a consulting professor. His career also includes senior management positions at Siltec Corporation and LG Siltron (a Korean wafer manufacturing company). In 1994, he started a high technology consulting company and has been carrying out various high technology transfer projects between the USA and Pacific Rim countries. He has organized more than 25 national and international technical symposia on CMP, Defect Engineering, Materials Characterization, Wafers, SOI (Silicon-On-Insulator) and Wafer Cleaning. Dr. Hahn's international experience in the semiconductor industry allows him to provide advice to the Board of Directors in a wide range of technical areas.

**Robert F. King** has been a Director since May 2003. Since 1989, Mr. King has been President of King Associates, which provides consulting services to equipment companies serving the solar, semiconductor and flat panel display industries. From 1968 to 1988, Mr. King was employed at Varian Associates, where he served in various marketing positions, including Vice President of Marketing for the Semiconductor Equipment Division. Mr. King also served on the Board of Directors of Varian's joint venture semiconductor equipment companies located in Korea and Japan. Mr. King has significant experience in advising companies in the solar and semiconductor industries, which allows him to advise the Board of Directors with respect to the Company's overall business. Mr. King also provides the Board of Directors with technical and financial advice as a member of the Company's Audit and Technology Strategy Committees.

### **Information About Board and Committee Meetings**

Information concerning our Board of Directors and the four committees maintained by our Board is set forth below. A majority of the Board of Directors, as well as the Company's Board committees, consist of Directors who are not employees of the Company and who are "independent" within the meaning of the listing standards of the NASDAQ Stock Market. Currently, the Company's independent directors are Michael Garnreiter, Alfred W. Giese, Egbert J. G. Goudena, Robert F. King and SooKap Hahn.

Our Board of Directors held eight (8) meetings during fiscal year 2011. No director attended less than 75% of the aggregate of all Board meetings held while he served as such director and all committee meetings on which he served as a committee member. Our Board has the authority under the Company's Bylaws to increase or decrease the size of our Board and to fill vacancies, and the directors chosen to fill such vacancies will hold office until the Company's next annual meeting or until their successors are elected and qualified. The Company does not have a formal policy with respect to members of the Board of Directors attending the annual meeting. Each of the members of the Company's Board of Directors attended the annual meeting for fiscal year 2011.

The Audit Committee, the Compensation and Stock Option Committee, the Nominating and Governance Committee and the Technology Strategy Committee are the standing committees of our Board of Directors. The members of the committees are as follows:

**Audit** – Michael Garnreiter (Chairman), Alfred W. Giese and Robert F. King

**Compensation and Stock Option** – Alfred W. Giese (Chairman), Robert F. King and SooKap Hahn

**Nominating and Governance** – Michael Garnreiter (Chairman), Egbert J. G. Goudena and SooKap Hahn

**Technology Strategy** – Robert F. King (Chairman), Michael Garnreiter, Alfred W. Giese, Egbert J. G. Goudena, SooKap Hahn, Fokko Pentinga and Jong S. Whang

The Audit Committee held four (4) meetings during fiscal year 2011. The Audit Committee is responsible for maintaining communication between the Board of Directors, the 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 internal accounting controls and systems and the retention and termination of the independent auditors. The Audit Committee also develops and recommends corporate governance guidelines to the Board and provides oversight with respect to corporate governance and ethical conduct. The Audit

Committee has a written charter, a copy of which is available on the Company's website at [www.amtechsystems.com](http://www.amtechsystems.com).

The Audit Committee is composed of outside directors who are not officers or employees of the Company or its subsidiaries. In the opinion of our Board, and as "independent" is defined under the listing rules of the NASDAQ Stock Market, these directors are independent of management and free of any relationship that would interfere with their exercise of independent judgment as members of this committee. Additionally, each member of the Audit Committee is financially literate, and one of the Audit Committee members, Michael Garnreiter, has financial management expertise as required by NASDAQ's rules and meets the SEC's definition of an "audit committee financial expert."

The Compensation and Stock Option Committee held three (3) meetings during fiscal year 2011. The Compensation and Stock Option Committee makes recommendations concerning officer compensation, employee benefit programs and retirement plans. The Compensation and Stock Option Committee has a written charter, a copy of which is available on the Company's website at [www.amtechsystems.com](http://www.amtechsystems.com).

The Nominating and Governance Committee held three (3) meetings during fiscal year 2011. The Nominating and Governance Committee identifies and approves individuals qualified to serve as members of our Board and also evaluates the Board's performance. In evaluating a prospective nominee, the Nominating and Governance Committee takes several factors into consideration, including such individual's integrity, business skills, experience and judgment. The evaluation of director nominees by the Nominating and Governance Committee also takes into account the diversity of board members' background. The Nominating and Governance Committee also reviews whether a prospective nominee will meet the Company's independence standards and any other director or committee membership requirements imposed by law, regulation or stock exchange rules. The Nominating and Governance Committee approved the nomination of the candidates reflected in Proposal 1. The Nominating and Governance Committee will consider, but is not required to approve, director nominations made by shareholders for any annual meeting of the Company, provided a written recommendation is received by the Company no later than the date shareholder proposals must be submitted for consideration prior to such annual meeting and all other applicable requirements have been satisfied. The Nominating and Governance Committee is comprised of independent members of the Board. The Nominating and Governance Committee has a written charter, a copy of which is available on the Company's website at [www.amtechsystems.com](http://www.amtechsystems.com).

The Technology Strategy Committee held three (3) meetings during fiscal year 2011. The Technology Strategy Committee assists the Board of Directors in understanding and evaluating the Company's technology strategy and evaluating potential acquisitions of new technology.

#### **Board Leadership Structure**

Effective January 1, 2012, our Executive Chairman of the Board, Mr. Whang, serves as the leader of our Board of Directors, while Mr. Pentinga serves as the Company's Chief Executive Officer (CEO). The Company does not have a policy regarding the combination or separation of the Chairman and CEO roles. The Company's Nominating and Governance Committee retains flexibility for the Board to determine whether those roles should be combined or separated in light of prevailing circumstances. We believe that separating the roles of Chairman and Chief Executive Officer at this time will allow Mr. Whang to increase his focus on external growth opportunities while Mr. Pentinga takes over the role of Chief Executive Officer to focus on the Company's operations to transform and sustain innovation within the Company. We believe this will enhance the ability of each to discharge their duties effectively. For these reasons, we believe our Board leadership structure is appropriate for our Company and is in the best interest of the Company and its shareholders.

The Board of Directors has not designated a lead director at this time. We believe that our committee chairmen have the opportunity to call and plan executive sessions collaboratively and, between meetings of the full Board of Directors, communicate with management and one another directly. Accordingly, we do not believe there is a need to designate a lead director at this time.

#### **Board's Role in Risk Oversight**

The Company's Board of Directors is actively engaged in the oversight of risks that could affect the Company, with key aspects of such oversight being conducted through the committees of the Board of Directors. The Audit Committee focuses on financial risks, primarily those that could arise from our accounting and financial reporting processes, and also oversees compliance-related legal and regulatory exposure. The Nominating and Governance Committee focuses on the management of risks associated with corporate governance matters, including board organization, membership and structure; management development; and appropriate approval and

oversight mechanisms. The Compensation and Stock Option Committee focuses on the management of risks arising from our compensation policies and programs and, in particular, our executive compensation programs and policies.

While the committees of our Board of Directors are focused on the above specific areas of risk, the full Board of Directors retains responsibility for the general oversight of risk. Committee chairs are expected to provide periodic reports to the full Board of Directors regarding the risk considerations within each committee's area of expertise. In addition, periodic reports are provided to the Board of Directors or the appropriate committee by the executive management team on areas of material risk to the Company, including operational, financial, legal, regulatory and strategic risks. In addition, at the annual management and Board planning meeting (usually in September), the general management and operating leadership of the Company's divisions and subsidiaries also review, with the full Board, their individual assessment of business risks and their approach to manage those risks. The Board of Directors relies upon these reports and its discussions relating to such reports and risk generally to enable it to understand the Company's risk identification, risk management and risk mitigation strategies. This enables the Board of Directors and its committees to coordinate its risk oversight role. The Board of Directors' approach to risk oversight does not directly affect the leadership structure of our Board of Directors, as described above.

#### DIRECTOR COMPENSATION

| Name                | Fees Earned or Paid in<br>Cash (\$) | Option Awards (\$) (1) | All other Comp. (\$) | Total (\$) |
|---------------------|-------------------------------------|------------------------|----------------------|------------|
| Jong S. Whang (2)   | —                                   | —                      | —                    | —          |
| Fokko Pentinga (2)  | —                                   | —                      | —                    | —          |
| Michael Garnreiter  | 76,413                              | 53,834                 | —                    | 130,247    |
| Alfred W. Giese     | 81,000                              | 53,834                 | —                    | 134,834    |
| Egbert J.G. Goudena | 47,750                              | 53,834                 | —                    | 101,584    |
| SooKap Hahn         | 21,055                              | 75,965                 | —                    | 97,020     |
| Jeong Mo Hwang (3)  | 93,250                              | 53,834                 | —                    | 147,084    |
| Robert F. King      | 95,088                              | 53,834                 | —                    | 148,922    |

- (1) Amounts represent the aggregate grant date fair value computed in accordance with FASB ASC Topic 718. For a description of the assumptions made by the Company when calculating such grant date fair value, refer to Note 1 to the Company's consolidated financial statements as set forth in the Company's Form 10-K filed November 17, 2011.
- (2) Directors who are full-time employees of our Company receive no additional compensation for serving as directors.
- (3) Dr. Hwang resigned from the Board of Directors effective April 20, 2011. Option awards granted while he was a director will continue to vest under the normal vesting schedule per the Non-Employee Directors Stock Option Plan.

Directors who are full-time employees of our Company receive no additional compensation for serving as directors. Non-employee directors receive an annual retainer of \$16,000, fees of \$2,000 per Board meeting attended in person, \$750 per board meeting attended telephonically, \$1,250 per Audit Committee meeting attended in person, \$750 per Audit Committee meeting attended telephonically, \$750 per Compensation and Stock Option Committee or Nominating and Governance Committee or Technology Strategy Committee meeting attended in person, and \$500 per Compensation and Stock Option Committee or Nominating and Governance Committee or Technology Strategy Committee meeting attended telephonically. In addition to meeting fees, members of board committees receive compensation for time spent on work assigned by the committee. The rate of compensation for the work assignments is \$100 per hour. In addition, under our Non-Employee Directors Stock Option Plan, each non-employee director currently receives a grant of options to purchase 6,000 shares of common stock, or such other number of shares as may be determined by the Board, when first elected or appointed to the Board, and 6,000 shares of common stock, or such other number of shares as may be determined by the Board, upon each re-election to the Board at our annual meeting of shareholders or at such other time as may be determined by the Board. The exercise price of the options is set at the fair market value of common stock on the date of grant. 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 30 days following the date such person ceased to be a director, or such other date as may be determined by the Board, but only to the extent such options were exercisable on the date the director ceased to be a director. Furthermore, the director serving as the Chairman of the Audit Committee receives an annual retainer of \$15,000. The director serving as the Chairman of the Technology Strategy Committee, the director serving as the Chairman of the Compensation and Stock Option Committee as well as the director serving as the Chairman of the Nominating and Governance Committee each receive an annual retainer of \$6,000.

#### **Compensation Committee Interlocks and Insider Participation**

The Compensation and Stock Option Committee is presently comprised of Messrs. Alfred W. Giese, Robert F. King and SooKap Hahn who are not officers or employees of the Company. No interlocking relationship exists, or in the past fiscal year has existed, between any member of the Compensation and Stock Option Committee and any member of any other company's board of directors or compensation committee.

## EXECUTIVE COMPENSATION

### COMPENSATION DISCUSSION AND ANALYSIS

This section discusses the principles underlying our executive compensation policies and decisions. It provides qualitative information regarding the manner in which compensation is earned by the five executive officers whose compensation is disclosed in the compensation tables following this discussion. We refer to these executive officers as “named executive officers” or “NEOs”. Our named executive officers for fiscal year 2011 were:

- Jong S. Whang      Chief Executive Officer  
(1)
- Fokko Pentinga      President  
(2)
- Bradley C. Anderson      Executive Vice President and Chief Financial Officer
- Robert T. Hass      Vice President and Chief Accounting Officer
- Jeong Mo Hwang      Vice President and Chief Technology Officer

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(1) Effective January 1, 2012, Mr. Whang serves as Executive Chairman and is no longer the Chief Executive Officer.

(2) Effective January 1, 2012, Mr. Pentinga serves as President and Chief Executive Officer

The following discussion and analysis of compensation arrangements should be read together with the compensation tables and related disclosures set forth below. This discussion contains forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt may differ materially from currently planned programs as summarized in this discussion. In addition, we address the compensation paid or awarded during fiscal year 2011 to our named executive officers.

#### **Executive Summary**

##### *Recap of Fiscal Year 2011 Company Performance*

We believe that the compensation of our executive officers should facilitate the achievement of annual corporate goals as well as the performance of long-term business objectives. Our business and financial results for fiscal year 2011 include the following:

- Record net revenue of \$247 million, compared to \$120 million in fiscal 2010
- Record solar revenue of \$212 million, compared to \$99 million in fiscal 2010
- Record bookings of \$240 million (\$199 million solar)
- Record net income of \$22.9 million, or \$2.34 per diluted share, compared to net income of \$9.6 million in fiscal 2010, or \$1.04 per fully diluted share

It is the responsibility of the Compensation and Stock Option Committee, or Compensation Committee, of our Board of Directors to administer our compensation practices to ensure that they are competitive and include incentives which are designed to appropriately drive corporate performance. Our Compensation Committee reviews and approves all of our compensation policies, relating to our named executive officers’ salaries, bonuses and equity incentive compensation.

## **Objectives of Our Executive Compensation Programs**

Our compensation programs for our named executive officers are designed to achieve the following objectives:

- attract and retain talented and experienced executives in our industry;
- motivate and reward executives whose knowledge, skills and performance are critical to our success;
- align the interests of our executives and shareholders by rewarding executives when shareholder value increases; and
- motivate our executives to manage our business to meet our short-term and long-term corporate goals and business objectives, and reward them for meeting these objectives.

We use a mix of short-term compensation in the form of base salaries and cash incentive bonuses and long-term compensation in the form of equity incentive compensation to provide a total compensation structure that is designed to encourage our executives to achieve these objectives.

## **Determining Executive Compensation**

Our Compensation and Stock Option Committee establishes our general compensation policies and specific compensation for each of our executive officers, and administers our stock option program. Our Compensation and Stock Option Committee is responsible for developing, administering and interpreting the compensation program for executive officers and other key employees. Our Compensation and Stock Option Committee was appointed by our Board of Directors, and consists entirely of independent, outside directors who are “non-employee directors” for purposes of Rule 16b-3 under the Exchange Act.

Our Compensation and Stock Option Committee may delegate some or all of its responsibilities to one or more subcommittees whenever necessary to comply with any statutory or regulatory requirements or otherwise deemed appropriate by our Compensation and Stock Option Committee. Our Compensation and Stock Option Committee has the authority to retain consultants and other advisors to assist with its duties and has sole authority to approve the fees and other retention terms of such consultants and advisors.

Our Compensation and Stock Option Committee’s objective is to make the compensation packages of our executive officers sufficient to attract and retain persons of exceptional quality and to provide effective incentives to motivate and reward our executives for achieving our financial and strategic goals, which are essential to our long-term success and growth in shareholder value.

## **Elements of Our Executive Compensation Programs**

Our executive compensation package for the fiscal year ended September 30, 2011 consisted of three main components: base salary, incentive cash bonuses and equity incentives. We believe it is important that the interests of our named executive officers are aligned with those of our shareholders; therefore, equity incentive compensation, in the form of stock options and restricted stock grants, constitutes a significant portion of our total executive compensation.

Within the context of the overall objectives of our compensation programs, the Compensation Committee determined the specific amounts of compensation to be paid to each of our executives in fiscal year 2011 based on a number of factors including:

- the roles and responsibilities of our named executive officers;
- the individual experience and skills of our named executive officers;
- the amounts of compensation being paid to our other executives;
- our named executive officers’ historical compensation at our company;
- the overall benefits package provided to our named executive officers; and
- our understanding of the amount of compensation generally paid by similarly situated companies to their executives with similar roles and responsibilities.

## Annual Cash Compensation

### *Base Compensation*

Our Compensation and Stock Option Committee's approach is to offer executives salaries competitive with those of other executives in the industry in which we operate. To that end, our Compensation and Stock Option Committee periodically evaluates the competitiveness of base salaries based on information drawn from a variety of sources, including published and proprietary survey data and our own experience recruiting and retaining executives, although complete information is not easily obtainable. Our base salary levels are intended to be consistent with competitive practice and level of responsibility, with salary increases reflecting competitive trends, our overall financial performance and the performance of the individual executive. Salaries are adjusted to reflect individual roles and performance and may be increased at other times if a change in the scope of the officer's responsibilities justifies such consideration or in order to maintain salary equity among executive officers. We believe that a competitive base salary is a necessary element of any compensation program designed to attract and retain talented and experienced executives. We also believe that attractive base salaries can serve as an effective reward for the executives' overall performance.

### *Cash bonuses*

In addition to base salary, our executives are eligible to receive annual cash incentive bonuses comprised of (i) discretionary cash bonuses determined by the Compensation and Stock Option Committee and (ii) bonuses earned under the Company's non-equity incentive bonus plan.

The primary objectives of our discretionary bonuses and incentive bonus plan are to provide an incentive for superior work, to motivate our executives toward even higher achievement and business results, to tie our executives' goals and interests to ours and our shareholders' and to enable us to attract and retain highly qualified individuals. After the close of each fiscal year, our Compensation and Stock Option Committee reviews our actual financial performance against the incentive bonus plan performance criteria for each executive in determining year-end incentive bonuses, if any. In addition, our Compensation and Stock Option Committee may recommend discretionary bonuses for particular contribution to the goals of the Company or where incentive bonuses do not adequately reflect the executive's contributions during the year due to circumstances beyond the executive's control.

Under our non-equity incentive bonus plan, participants can earn a target bonus equal to a specified percentage of their base salary by achieving 100% of pre-defined performance objectives. The participant's bonus calculation is based upon achieving performance objectives established in each of the following categories: (i) bookings; (ii) revenue; (iii) gross margin; and (iv) operating profit. Objectives established for participants in these categories may be either at the corporate level, the operating division level or both. In addition, individual performance objectives may be established for certain participants. In order to be eligible for a bonus with respect to any of the above performance categories, the participant must achieve not less than 80% (90% in the case of gross margin) of the applicable performance objective. At these minimum levels, 20% of the bonus for the category is eligible for payment. The bonus calculation percentage with respect to any performance category increases by 4% (8% with respect to gross margin) for each 1% improvement in performance over the minimum level up to 100%, and by 1% (10% with respect to gross margin) for each 1% improvement in performance over 100%, up to a maximum of 150% (200% with respect to gross margin) of the participant's target bonus.

Mr. Whang's target bonus for fiscal 2011 was 80% of his base salary, or \$320,000; Mr. Peninga's target bonus for fiscal 2011 was 65% of his base salary, or \$201,500; Mr. Anderson's target bonus was 55% of base salary, or \$145,750; Mr. Hass' target bonus was 30% of base salary, or \$51,000. Dr. Hwang's target bonus for fiscal 2011, was 30% of base salary, or \$23,358, prorated for his employment date of April 20. The bonus of the five named executive officers was calculated solely upon the basis of performance objectives at the corporate level. If fiscal 2011 performance was equivalent to 80% (90% with respect to gross margin) of performance objectives in all corporate performance categories, Mr. Whang's bonus calculation would be \$64,000, Mr. Peninga's bonus calculation would be \$40,300, Mr. Anderson's bonus calculation would be \$29,150, Mr. Hass' bonus calculation would be \$10,200 and Dr. Hwang's prorated bonus calculation would be \$4,672. If fiscal 2011 performance was 150% (110% with respect to gross margin) of performance objectives in all corporate performance categories, Mr. Whang's bonus calculation would be \$480,000, Mr. Peninga's bonus calculation would be \$302,250, Mr. Anderson's bonus calculation would be \$218,625, Mr. Hass' bonus calculation would be \$76,500 and Dr. Hwang's prorated bonus calculation would be \$35,037.

Notwithstanding the calculation of any bonus amount under the fiscal 2011 bonus plan, (i) no bonuses would have been payable based on achievement of corporate level objectives if consolidated operating profit was less than 3%; (ii) no bonuses would have been



payable based on achievement of divisional level objectives if division operating profit (before corporate expense allocation) was less than 5%; and (iii) all bonus payments were subject to the discretionary approval of our Compensation and Stock Option Committee.

For fiscal 2011, the Compensation and Stock Option Committee awarded the following bonuses pursuant to the non-equity incentive bonus plan: Mr. Whang - \$409,600; Mr. Pentinga - \$257,920; Mr. Anderson - \$186,560; Mr. Hass - \$65,280; and Dr. Hwang - \$29,898. Our Compensation and Stock Option Committee also awarded a discretionary bonus to Mr. Pentinga in the amount of \$100,000. Mr. Pentinga's discretionary bonus was awarded primarily due to his role in leading the Company to record-breaking operating and financial results.

#### *Equity incentive compensation*

From time to time, we grant stock options and shares of restricted stock in order to provide certain of our executives with a competitive total compensation package, and to reward them for their contribution to the long-term price performance of our common stock. These equity incentive awards are in the form of stock options and restricted stock grants to align the interests of our executives with our shareholders by providing our executives with strong incentives to increase shareholder value. Our Board of Directors does not apply a rigid formula in allocating stock options or restricted stock to our named executive officers as a group or to any particular executive. Instead, our Board of Directors exercises its judgment and discretion and considers, among other things, the executive's past performance and contributions, and the executive's anticipated future contributions and responsibilities, competitive factors, the non-equity compensation received by the executive and the total number of options and shares of restricted stock to be granted to all participants during the year.

Our Compensation and Stock Option Committee has discretion to determine the vesting schedule of the stock options and restricted period of the restricted stock granted under our 1998 Stock Option Plan and our 2007 Employee Stock Incentive Plan. The vesting period and restricted period provide added incentive for the executive to continue his or her employment with us.

In fiscal 2011, we granted options to purchase a total of 155,233 shares of common stock, of which options to purchase a total of 68,000 shares were granted to our named executive officers, representing 44% of all options granted in fiscal 2011. In fiscal 2011, we granted 35,517 shares of restricted stock, of which 31,500 shares of restricted stock were granted to our named executive officers. The number of stock options and shares of restricted stock granted to each executive is set forth in the "Grants of Plan-Based Awards" table below. The aggregate grant date fair value (calculated in accordance with FASB ASC Topic 718) with respect to such grants for each individual named executive officer is set forth in the column "Option Awards" and "Stock Awards" in the "Summary Compensation Table." The exercise price of each stock option granted under our plan is based on the fair market value of our common stock on the grant date.

#### *Benefits*

All of our named executive officers are eligible for benefits offered to employees generally, including life, health, disability and dental insurance and our 401(k) plan. Consistent with our compensation philosophy is our intent to maintain our current benefits for our executive officers. Our Compensation and Stock Option Committee, in its discretion, may revise the named executive officers' benefits if it deems it advisable.

#### *Severance and change in control arrangements*

Our chief executive officer has an employment agreement that provides various benefits triggered by such employment-related actions as termination without cause, resignation with good reason and/or termination without cause following a change in control. See "Employment Agreement with Chief Executive Officer" below for a description of such provisions. Additionally, our president, chief financial officer, chief accounting officer and chief technology officer have agreements that provide for severance payments and change of control payments. See "Change of Control and Severance Agreement with President," "Change of Control Agreement with Chief Financial Officer," "Change of Control and Severance Agreement with Chief Accounting Officer" and "Change of Control and Severance Agreement with Chief Technology Officer" below for a description of such provisions. Each of the employment agreements and change in control agreements has been amended to ensure compliance with Section 409A of the Internal Revenue Code.

In setting the terms of and determining whether to approve these severance and change in control arrangements, our Compensation Committee or Board of Directors, as applicable, recognized that executives often face challenges securing new employment following

a termination of their existing employment and that distractions created by uncertain job security may have a detrimental impact on their performance. None of these benefits are triggered by a change in control unless our named executive officer's employment is terminated without cause following such change in control.

*Effect of accounting treatment on compensation decisions*

In the review and establishment of our compensation programs, we consider the anticipated accounting and tax implications to us and our executives. For example, we may utilize restricted stock as forms of equity compensation incentives in response to changes in the accounting treatment of equity awards. While we consider the applicable accounting and tax treatment, these factors alone are not determinative, and we also consider the cash and non-cash impact of the programs and whether a program is consistent with our overall compensation philosophy and objectives.

**Compensation Committee Report**

**REPORT OF COMPENSATION AND STOCK OPTION COMMITTEE**

The Compensation and Stock Option 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 Compensation and Stock Option Committee has reviewed and discussed the Compensation Discussion and Analysis included above with management and based on such review and discussions the Compensation and Stock Option Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement.

RESPECTFULLY SUBMITTED,

Alfred W. Giese, Chairman  
Robert King  
SooKap Hahn

**SUMMARY COMPENSATION TABLE**

The following table sets forth information regarding compensation for services rendered to Amtech during the fiscal years ended September 30, 2011, 2010 and 2009 by our named executive officers who received annual compensation exceeding \$100,000 during such period.

**SUMMARY COMPENSATION TABLE**

| Name and Principal Position                            | Year | Salary (\$) | Bonus (\$) (1) | Stock Awards (\$) (2) | Option Awards (\$) (2) | Non-Equity Incentive Plan Compensation (\$) (3) | All Other Compensation (\$) |     | Total (\$) |
|--|------|-------------|----------------|-----------------------|------------------------|---|-----------------------------|-----|------------|
| Jong S. Whang,<br>Chief Executive Officer and Director | 2011 | 386,539     |                | 230,394               | 287,118                | 409,600   | 36,159                      | (5) | 1,350,091  |
|  | 2010 | 339,231     | 105,000        | 114,700               | 142,875                | 315,000   | 33,196                      | (6) | 1,050,002  |
|  | 2009 | 315,539     | 95,000         | 190,000               | 137,418                | —   | 23,502                      | (7) | 761,459    |
| Fokko Pentinga<br>President                            | 2011 | 309,951     | 100,000        | 201,606               | 251,222                | 257,920   | 42,804                      | (9) | 1,163,502  |
|  | 2010 | 247,509     | 170,523        | 66,213                | 82,442                 | 211,568   | 24,040                      | (9) | 802,295    |
| Bradley C. Anderson,<br>Chief Financial Officer        | 2011 | 260,315     |                | 100,794               | 125,616                | 186,560   | 17,350                      | (8) | 691,068    |
|  | 2010 | 237,462     | 56,250         | 57,350                | 71,438                 | 183,750   | 18,327                      | (8) | 624,577    |
|  | 2009 | 222,210     | 50,000         | 38,000                | 68,709                 | —   | 10,773                      | (9) | 389,692    |
| Robert T. Hass,<br>Chief Accounting Officer            | 2011 | 165,477     |                | 11,526                | 14,352                 | 65,280  | 13,853                      | (8) | 270,914    |
|  | 2010 | 131,663     | 18,500         | 15,295                | 19,049                 | 55,500  | 10,828                      | (8) | 250,835    |
|  | 2009 | 138,689     | 12,000         | 30,400                | 20,613                 | —   | 7,027                       | (9) | 208,729    |
| Jeong Mo Hwang<br>Chief Technology Officer<br>(4)      | 2011 | 69,354      |                | —                     | 53,834                 | 29,898  | 2,692                       |     | 156,210    |

- (1) Represents discretionary cash bonuses awarded on November 11, 2011 for fiscal year 2011, November 12, 2010, for fiscal year 2010 and on December 21, 2009 for fiscal year 2009.
- (2) Amounts represent the aggregate grant date fair value calculated in accordance with FASB ASC Topic 718. For a description of the assumptions made by the Company when calculating such grant date fair value, refer to Note 1 to the Company's consolidated financial statements as set forth in the Company's Form 10-K filed November 17, 2011.
- (3) On November 11, 2011 and on November 12, 2010 the Board of Directors, based upon the recommendation of the Compensation and Stock Option Committee, awarded non-equity incentive plan compensation to executives for their fiscal 2011 and 2010 performance, respectively, in the amounts indicated. There was no non-equity incentive plan compensation awarded for fiscal 2009 performance.
- (4) Jeong Mo Hwang was hired on April 20, 2011. All figures represent compensation from that date to September 30, 2011.
- (5) Amount represents car allowance of \$18,000, \$10,809 of life insurance premiums paid by the Company for which Mr. Whang's spouse is the beneficiary and Company match under the 401(k) plan of \$7,350.
- (6) Amount represents car allowance of \$12,000, \$12,869 of life insurance premiums paid by our company for which Mr. Whang's

spouse is the beneficiary and Company match under the 401(k) plan of \$8,327.

- (7) Amount represents car allowance of \$12,046, payments in lieu of participating in benefit plans of \$9,396 and \$2,060 of life insurance premiums paid by the Company for which Mr. Whang's spouse is the beneficiary.
- (8) Represents Company match under the 2010 and 2011 401(k) plan of \$8,327 and \$7,350 respectively, for Mr. Anderson and \$4,501 and 6,853, respectively, for Mr. Hass; and car allowance of \$10,000 per year for Mr. Anderson and \$6,327 and \$7,000 for Mr. Hass in 2010 and 2011, respectively.
- (9) Amount primarily represents car allowance.

#### GRANTS OF PLAN-BASED AWARDS

The following table sets forth grants of plan-based awards made to our named executive officers in fiscal 2011 and related fair value compensation for fiscal 2011:

| Name                | Grant Date (1) | Date Grant Approved by Board (1) | Estimated Future Payouts Under Non-Equity Incentive Plan Awards |            |              | All Other Stock Awards: Number of Shares of Stock or Units (#) (1) | All Other Option Awards: Number of Securities Underlying Options (#) (1) | Exercise or Base Price of Options Awards (\$/Sh) (2) | Grant Date Fair Value of Stock and Option Awards (\$) (3) |
|---------------------|----------------|----------------------------------|---|------------|--------------|--|--|--|---|
|                     |                |                                  | Threshold (\$)  | Target(\$) | Maximum (\$) |  |  |  |   |
| Jong S. Whang       | 11/12/2010     | 11/12/2010                       | 64,000  | 320,000    | 480,000      | 13,333   | 26,667   | 17.12  | 517,512   |
| Fokko Pentinga      | 11/12/2010     | 11/12/2010                       | 40,300  | 201,500    | 302,250      | 11,667   | 23,333   | 17.12  | 452,828   |
| Bradley C. Anderson | 11/12/2010     | 11/12/2010                       | 29,150  | 145,750    | 218,625      | 5,833  | 11,667   | 17.12  | 226,410   |
| Robert T. Hass      | 11/12/2010     | 11/12/2010                       | 10,200  | 51,000     | 76,500       | 667  | 1,333  | 17.12  | 25,878  |
| Jeong Mo Hwang      | 11/12/2010     | 11/12/2010                       | 10,200  | 51,000     | 76,500       | —  | 5,000  | 17.12  | 53,834  |

- (1) The stock and option awards listed above vest in four (4) equal annual installments commencing on the first anniversary of the date of grant except for Mr. Hwang's stock options. Mr. Hwang's options were granted while he was serving as a director on the Board of Directors. Mr. Hwang's options vest in three (3) equal installments commencing on the first anniversary of the date of grant.
- (2) The exercise price is equal to the closing price of the Company's Common Stock on the day before the grant.
- (3) See Stock-Based Compensation under Note 1 to the consolidated financial statements included in our Form 10-K filed November 17, 2011 for a discussion of the assumptions used to value equity based compensation.

**EQUITY COMPENSATION PLAN INFORMATION**

The following table sets forth information regarding grants of plan-based option awards held by our named executive officers as of September 30, 2011:

**OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END**

| Name                | Option Awards   |   |                             |                        | Stock Awards  |  |
|---------------------|---|---|-----------------------------|------------------------|---|--|
|                     | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Options (#) Unexercisable | Options Exercise Price (\$) | Option Expiration Date | Number of Shares or Units of Stock That Have Not Vested (#) | Market Value of Shares or Units of Stock that have Not Vested (\$) |
| Jong S. Whang       | 30,000  | —   | 6.90                        | 12/8/2016              | 52,083  | 416,664  |
|                     | 22,500  | 7,500   | 14.79                       | 12/6/2017              |   |  |
|                     | 30,000  | 30,000  | 3.80                        | 12/9/2018              |   |  |
|                     | 5,000   | 15,000  | 6.15                        | 11/20/2019             |   |  |
|                     | 2,500   | 7,500   | 10.64                       | 8/6/2020               |   |  |
|                     |   | 26,667  | 17.12                       | 11/12/2020             |   |  |
| Fokko Pentinga      | —   | 3,125   | 14.79                       | 12/6/2017              | 22,291  | 178,328  |
|                     | 6,250   | 12,500  | 3.80                        | 12/9/2018              |   |  |
|                     | 2,500   | 7,500   | 6.15                        | 11/20/2019             |   |  |
|                     | 1,667   | 5,000   | 10.64                       | 8/6/2020               |   |  |
|                     | —   | 23,333  | 17.12                       | 11/12/2020             |   |  |
| Bradley C. Anderson | 10,000  | —   | 8.51                        | 4/24/2016              | 17,708  | 141,664  |
|                     | 5,000   | —   | 6.90                        | 12/8/2016              |   |  |
|                     | 15,000  | —   | 7.30                        | 2/19/2017              |   |  |
|                     | 11,250  | 3,750   | 14.79                       | 12/6/2017              |   |  |
|                     | —   | 15,000  | 3.80                        | 12/9/2018              |   |  |
|                     | —   | 7,500   | 6.15                        | 11/20/2019             |   |  |
|                     | 1,250   | 3,750   | 10.64                       | 8/6/2020               |   |  |
|                     | —   | 11,667  | 17.12                       | 11/12/2020             |   |  |
| Robert T. Hass      | 5,000   | —   | 6.90                        | 12/8/2016              | 6,541   | 52,328   |
|                     | 3,751   | 1,249   | 14.79                       | 12/6/2017              |   |  |
|                     | 4,500   | 4,500   | 3.80                        | 12/9/2018              |   |  |
|                     | 667   | 2,000   | 6.15                        | 11/20/2019             |   |  |
|                     | 334   | 999   | 10.64                       | 8/6/2020               |   |  |
|                     |   | 1,333   | 17.12                       | 11/12/2020             |   |  |
| Jeong Mo Hwang      | 2,020   | 2,000   | 5.01                        | 6/25/2019              | —   | —  |
|                     | 1,667   | 3,333   | 6.15                        | 11/20/2019             |   |  |
|                     | —   | 5,000   | 17.12                       | 11/12/2020             |   |  |

## Option Exercises and Stock Vested

The following table shows all stock options exercised and the value realized upon exercise, and all stock awards vested and the value realized upon vesting, by the named executive officers during fiscal 2011, which ended on September 30, 2011.

### OPTION EXERCISES AND STOCK VESTED FOR FISCAL 2011

| Name                | Option Awards                             |                                     | Stock Awards                             |                                    |
|---------------------|---|-------------------------------------|--|------------------------------------|
|                     | Number of Shares Acquired on Exercise (#) | Value Realized on Exercise (\$) (1) | Number of Shares Acquired on Vesting (#) | Value Realized on Vesting (\$) (2) |
| Jong S. Whang       | 38,700                                    | 439,975                             | 18,750                                   | 434,350                            |
| Fokko Pentinga      | 32,125                                    | 471,441                             | 4,584                                    | 97,315                             |
| Bradley C. Anderson | 10,000                                    | 204,375                             | 5,625                                    | 124,888                            |
| Robert T. Hass      | 9,611                                     | 144,917                             | 2,876                                    | 67,175                             |
| Jeong Mo Hwang      | —   | —                                   | —  | —                                  |

- (1) The value realized equals the difference between the option exercise price and the fair market value of Amtech common stock on the date of exercise, multiplied by the number of shares for which the option was exercised.
- (2) The value realized equals the fair market value of Amtech common stock on the vesting date, multiplied by the number of shares that vested.

#### Pension Benefits

None of our named executive officers receive pension benefits.

#### Nonqualified Deferred Compensation

None of our named executive officers receive nonqualified deferred compensation benefits.

### EMPLOYMENT AND CHANGE IN CONTROL ARRANGEMENTS

#### Employment Agreement with Chief Executive Officer

On March 11, 2010, we entered into an Amended and Restated Employment Agreement with Jong S. Whang, our chief executive officer. Below is a summary of the terms and conditions of Mr. Whang's employment agreement.

##### *Term*

Mr. Whang's employment agreement provides for an employment period commencing on the date of the employment agreement and continuing for an initial term of three years. Thereafter, the employment period will continue for successive one-year terms unless either we or Mr. Whang provides written notice of termination of the employment period at least 120 days prior to the end of any given term. If Mr. Whang remains in the full-time employ of our company beyond the employment period without any written agreement, his employment agreement will be deemed to continue on a month to month basis and either party will have the right to terminate the employment agreement at the end of any ensuing calendar month with written notice of at least 30 days.

##### *Base Salary*

Pursuant to his employment agreement, Mr. Whang receives a base salary of \$400,000 per annum, which base salary shall be reviewed on an annual basis by our Compensation and Stock Option Committee and can be increased, but not decreased below \$350,000, at the

discretion of our Compensation and Stock Option Committee.

#### *Incentive Compensation*

Mr. Whang is also entitled to an annual cash bonus for each fiscal year that will be determined in accordance with an annual bonus plan adopted by our Compensation and Stock Option Committee. The annual bonus plan may not be any less favorable to Mr. Whang than the bonus plan for fiscal 2010 that was adopted by our Compensation and Stock Option Committee on December 21, 2009. The terms of Mr. Whang's 2010 bonus plan are described below in more detail under the section "Other Agreements and Compensatory Arrangements."

#### *Stock Options*

Pursuant to Mr. Whang's employment agreement, any currently outstanding options held by Mr. Whang will remain in full force and effect in accordance with our stock option plans and applicable stock option agreements. Mr. Whang will also be issued an annual grant of stock options by our Compensation and Stock Option Committee within 90 days after the end of each fiscal year during his employment period. All of the options granted to Mr. Whang will be incentive stock options within the meaning of the Internal Revenue Code of 1986, or if they do not qualify as incentive stock options, they will be non-qualified stock options. The amount and terms of the grants will be determined by our Compensation and Stock Option Committee, but may not be any less favorable to Mr. Whang than the terms of the options previously granted to Mr. Whang on November 20, 2009.

#### *Benefits*

Mr. Whang will be entitled to receive from our Company such employee benefits as are provided to other executive officers of the Company, including family medical, dental, vision, disability and life insurance, and participation in pension and retirement plans, incentive compensation plans, stock option plans, Company-sponsored welfare benefit plans for disability and life insurance and other benefit plans. We will provide Mr. Whang with an annual automobile allowance of not less than \$14,000 (annual allowance is currently \$18,000), a life insurance policy in the face amount of \$500,000 and such other benefits as we may deem appropriate from time to time.

#### *Termination*

Mr. Whang's employment is "at will" and either we or Mr. Whang can terminate his employment agreement at any time, with or without "cause" or "good reason" (as those terms are defined in Mr. Whang's employment agreement), upon 30 days written notice. Mr. Whang's employment agreement can also be terminated by us due to the disability of Mr. Whang after at least 30 days' written notice by us of our intention to terminate his employment.

#### *Severance*

If we terminate the employment of Mr. Whang against his will and without cause (including by giving notice of termination of his employment agreement as described above), or if Mr. Whang terminates his employment for good reason, Mr. Whang is entitled to receive salary, incentive compensation and vacation accrued through the date of termination, plus (i) an amount equal to Mr. Whang's base salary in effect on the date of termination for the remainder of the initial three-year term or two years, whichever is greater (which, based upon his salary as of September 30, 2011, would have been up to \$1,200,000, if terminated during the first year of the term, or \$800,000 if terminated after the first year of the term); (ii) an amount equal to the maximum amount of incentive compensation he could earn for the fiscal year in which the termination occurs; and (iii) full vesting of all outstanding stock options and restricted stock held by Mr. Whang. The value of Mr. Whang's unvested stock options and unvested restricted stock at September 30, 2011 was approximately \$570,000.

If Mr. Whang voluntarily terminates his employment other than for good reason, if we terminate Mr. Whang's employment for cause, or if Mr. Whang's employment is terminated due to his death or disability, Mr. Whang will be entitled to receive salary and accrued vacation through the date of termination only. However, in the event Mr. Whang's employment is terminated due to his death or disability, he will also be entitled to receive (i) a pro-rata portion of the amount of incentive compensation he would earn for the fiscal year in which the termination occurs if the results of operations of Amtech for such fiscal year were annualized, and (ii) full vesting of all outstanding stock options and restricted stock held by him.

#### *Post-Employment Consulting*

Mr. Whang's employment agreement provides that upon termination of Mr. Whang against his will and without cause (including by giving notice of termination of his employment agreement as described above), or by Mr. Whang for good reason, for a period of two (2) years following the date of such termination, (i) Mr. Whang will make himself available for an average of 20 hours per week in order to consult with the Company in such manner and on such matters as the Company shall reasonably request, (ii) Mr. Whang will make himself available to serve on the Board of Directors of the Company, and (iii) in consideration for Mr. Whang's agreement to perform such services, the Company will (A) pay Mr. Whang an annual amount equal to 40% of his base salary in effect on the date he was terminated and (B) include Mr. Whang in the Company's family medical, dental and vision insurance plans, or, if Mr. Whang's inclusion in such plans is not permitted, provide substantially the same benefits to the Mr. Whang at the Company's expense.

#### *Noncompetition*

Mr. Whang agreed that during the term of his employment agreement he would not engage in certain activities in which he would be competing with us or our subsidiaries. He also agreed that for a period of two years after the end of the term of his employment agreement he would not engage in certain activities in which he would be competing with us or our subsidiaries and he would not own, directly or indirectly, more than a 5% interest in entities which compete with us or our subsidiaries.

#### *Change in Control*

In the event that Mr. Whang's employment with us is terminated either (i) by us for any reason other than for cause during a "pending change in control" (as that term is defined in Mr. Whang's employment agreement) of our Company or within one year following the occurrence of a "change in control" (as that term is defined in Mr. Whang's employment agreement), or (ii) by Mr. Whang for good reason within one year following the occurrence of a change in control of our Company, then Mr. Whang will be entitled to receive within 30 days of the date of termination of his employment (provided, however, if such 30 day period begins in one calendar year and ends in another calendar year, Mr. Whang will not have the right to designate the calendar year of payment), in lieu of the severance payment otherwise payable, (i) an amount equal to three years of his base salary in effect on the date of termination of his employment, (ii) the maximum amount of the incentive compensation which he could earn for the fiscal year in which the termination occurs, and (iii) full vesting of all outstanding stock options and restricted stock he holds.

#### **Change of Control and Severance Agreement with President**

On July 7, 2010, the Board approved entry into a Change of Control and Severance Agreement with Fokko Pentinga, our President. Below is a summary of the material terms and conditions of the Agreement.

#### *Term*

The term of Mr. Pentinga's agreement commences on July 7, 2010 and continues for an initial term of three years. Thereafter, the Term will continue for successive one year terms unless either the Company or Mr. Pentinga provides written notice of termination not less than 120 days prior to the end of the initial term or any applicable additional term thereafter, or unless earlier terminated by the mutual written consent of the Company and Mr. Pentinga.

#### *Change of Control Provisions*

In the event that Mr. Pentinga's employment with the Company is terminated (other than as a consequence of death or disability) either (i) by the Company for any reason other than for cause during a pending change in control of the Company or within one year following the occurrence of a change in control, or (ii) by Mr. Pentinga for good reason within one year following the occurrence of a change in control of the Company, then Mr. Pentinga will be entitled to receive from the Company the following: (i) an amount equal to two years of his base salary in effect on the date of termination of his employment (or \$620,000, based upon his salary as of September 30, 2011); (ii) the maximum amount of the incentive compensation which he could earn for the fiscal year in which the termination occurs; and (iii) full vesting of all outstanding stock options and restricted stock he holds. The value of Mr. Pentinga's unvested stock options and unvested restricted stock at September 30, 2011 was approximately \$245,000.



### **Change of Control Agreement with Chief Financial Officer**

On March 10, 2008, we entered into a Change of Control Severance Agreement with Bradley C. Anderson, our chief financial officer. Below is a summary of the terms and conditions of the agreement.

#### *Term*

The term of the agreement with Mr. Anderson commenced on March 10, 2008 and continues for an initial term of three years. Thereafter, the employment period will continue for successive one-year terms unless either we or Mr. Anderson provides written notice of termination of the employment period at least 120 days prior to the end of any given term.

#### *Change in Control*

In the event that Mr. Anderson's employment with us is terminated (other than as a consequence of death or disability) either (i) by us for any reason other than for cause during a "pending change in control" (as the term is defined in Mr. Anderson's change of control agreement) or within one year following the occurrence of a "change in control" (as the term is defined in Mr. Anderson's change of control agreement), or (ii) by Mr. Anderson for good reason within one year following the occurrence of a change in control, then Mr. Anderson will be entitled to receive from the Company the following: (i) an amount equal to two years of his base salary in effect on the date of termination of his employment (or \$530,000, based upon his salary as of September 30, 2011); (ii) the maximum amount of the incentive compensation which he could earn for the fiscal year in which the termination occurs; and (iii) full vesting of all outstanding stock options and restricted stock he holds. The value of Mr. Anderson's unvested stock options and unvested restricted stock at September 30, 2011 was approximately \$219,000.

### **Change of Control and Severance Agreement with Chief Accounting Officer**

On March 11, 2010, we entered into an Amended and Restated Change in Control and Severance Agreement with Robert T. Hass, our chief accounting officer. In the event that Mr. Hass's employment with us is terminated (other than as a consequence of death or disability) either (i) by us for any reason other than for cause during a "pending change in control" (as the term is defined in Mr. Hass's agreement) or within one year following the occurrence of a "change in control" (as the term is defined in Mr. Hass's agreement), or (ii) by Mr. Hass for good reason within one year following the occurrence of a change in control, then Mr. Hass will be entitled to receive from the Company the following: (i) an amount equal to one year of his base salary in effect on the date of termination of his employment (or \$170,000, based upon his salary as of September 30, 2011); (ii) an amount equal to the amount of accrued but unpaid incentive compensation earned by Mr. Hass as of the date of termination, prorated for the year in which the termination occurs and calculated through the end of the last full month prior to the date of termination with a proportionate adjustment to all caps and floors, if any, based upon the portion of the fiscal year worked prior to the termination; and (iii) full vesting of all outstanding stock options and restricted stock he holds. The value of Mr. Hass's unvested stock options and unvested restricted stock at September 30, 2011 was approximately \$75,000.

### **Change of Control and Severance Agreement with Chief Technology Officer**

On April 25, 2011, the Company entered into a Change of Control and Severance Agreement with Dr. Hwang. In the event that Dr. Hwang's employment with the Company is terminated (other than as a consequence of death or disability) either (i) by the Company for any reason other than for cause during a "pending change in control" (as the term is defined in Dr. Hwang's agreement) or within one year following the occurrence of a "change in control" (as the term is defined in Dr. Hwang's agreement), or (ii) by Dr. Hwang for good reason within one year following the occurrence of a change in control, then Dr. Hwang will be entitled to receive from the Company the following: (i) an amount equal to one year of his base salary in effect on the date of termination of his employment (or \$170,000, based upon his salary as of September 30, 2011); (ii) an amount equal to the amount of accrued but unpaid incentive compensation earned by Dr. Hwang as of the date of termination, prorated for the year in which the termination occurs and calculated through the end of the last full month prior to the date of termination with a proportionate adjustment to all caps and floors, if any, based upon the portion of the fiscal year worked prior to the termination; and (iii) full vesting of all outstanding stock options and restricted stock he holds. The value of Dr. Hwang's unvested stock options and unvested restricted stock at September 30, 2011 was approximately \$12,000.

### **Other Compensatory Arrangements**

On December 15, 2011, the Compensation and Stock Option Committee approved annual base compensation for its executive officers

for calendar year 2012 as follows: (i) Jong S. Whang, the Company's Executive Chairman and Chairman of the Board, \$400,000; (ii) Fokko Pentinga, the Company's President and Chief Executive Officer, \$370,000 (which salary will be paid in Euros based upon the exchange rate in effect as of December 17, 2010); (iii) Bradley C. Anderson, the Company's Executive Vice President—Finance and Chief Financial Officer, \$265,000; (iv) Robert T. Hass, the Company's Chief Accounting Officer, \$170,000 and (v) Jeong Mo Hwang, the Company's Chief Technology Officer, \$170,000. In addition, the Compensation Committee approved car allowances of \$18,000 per year for Mr. Whang, €29,500 per year for Mr. Pentinga, \$10,000 per year for Mr. Anderson and \$7,000 per year for Mr. Hass and Dr. Hwang.

On December 15, 2011, the Compensation and Stock Option Committee also approved target performance bonus amounts for its executive officers under the Company's non-equity incentive plan for fiscal year 2010 as follows: (i) for Mr. Whang, 80% of his base salary; (ii) for Mr. Pentinga, 65% of his base salary; (iii) for Mr. Anderson, 55% of his base salary; (iv) for Mr. Hass, 30% of his base salary and (v) for Dr. Hwang, 30% of his base salary.

On December 15, 2011, the Compensation and Stock Option Committee also approved stock options to purchase 36,667, 85,000, 16,667, 5,000 and 5,000 shares for Mr. Whang, Mr. Pentinga, Mr. Anderson, Mr. Hass and Dr. Hwang, respectively, and restricted stock grants of 18,333, 15,000, 8,333, 2,500 and 2,500 shares for Mr. Whang, Mr. Pentinga, Mr. Anderson, Mr. Hass and Dr. Hwang, respectively. Mr. Pentinga's grant of 85,000 options includes 55,000 options issued in connection with his appointment to the position of CEO effective January 1, 2012. Each of the options granted has an exercise price of \$7.98 (the closing price of Amtech common stock on December 14, 2011). The options expire ten years from the date of grant and vest 25% per year on the first through fourth anniversaries of the grant date. The restricted shares vest 25% per year on the first through fourth anniversaries of the grant date.

#### **Compensation Policies and Practices as Related to Risk Management**

The Compensation and Stock Option Committee does not believe the Company's compensation policies and practices create risks that are reasonably likely to have a material adverse effect on the Company. The Compensation and Stock Option Committee has determined that the Company's executive compensation program does not encourage unnecessary or excessive risk taking as a result of the following factors:

- As discussed elsewhere in this Proxy Statement, our executive officer compensation includes a balanced mix of cash and equity.
- Base salaries do not encourage risk taking as they are fixed in amount.
- Performance-based cash bonus awards under the non-equity incentive plan focus on achievement of short-term or annual goals. Although this may seem to encourage the taking of short-term risks at the expense of long-term results, these bonuses in actuality represent only a portion of the executive officers' total compensation opportunities, and the Compensation and Stock Option Committee believes that the non-equity incentive plan awards appropriately balance risk and the desire to focus executives on specific short-term individual and financial goals important to the Company's success.
- Discretionary cash bonuses are awarded at the discretion of the Compensation and Stock Option Committee, which allows the Compensation and Stock Option Committee to evaluate whether the executives are engaging in activities that create risks prior to awarding any such cash bonuses. This discretion mitigates the likelihood that executives will engage in activities that create risk, and allows the Compensation and Stock Option Committee the ability to refrain from rewarding any such risk-taking.
- Compensation provided to the executive officers in the form of long-term equity awards is important to help further align executives' interests with those of the Company's shareholders. The Compensation and Stock Option Committee believes that these awards do not encourage unnecessary or excessive risk taking because the ultimate value of the awards is tied to the Company's stock price over the long-term. In addition, the awards are subject to long-term vesting schedules to help ensure that executives have significant value tied to long-term stock price performance.

## AUDIT COMMITTEE REPORT

In accordance with its written charter adopted by our Board of Directors on April 16, 2005, a copy of which is available on the Company's website at [www.amtechsystems.com](http://www.amtechsystems.com), the Audit Committee is responsible for 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 our Board of Directors that the Company include the audited financial statements in its Annual Report on Form 10-K and overseeing compliance with the requirements of the SEC for disclosure of auditors' services and activities.

The Board of Directors annually reviews the independence of the Audit Committee members in view of FINRA's listing standards' and the SEC's definitions of independence for audit committee members. The Board has determined that each of the members of the Audit Committee meets those definitions and standards. Additionally, each member of the Audit Committee is financially literate, and one of the Audit Committee members, Michael Garnreiter, has financial management expertise as required by NASDAQ's rules and meets the SEC's definition of an "audit committee financial expert."

Management is responsible for the preparation, presentation and integrity of the Company's financial statements, accounting and financial reporting principles, internal controls, and procedures designed to ensure compliance with accounting standards and applicable laws and regulations. The Company's independent auditors are responsible for performing an independent audit of the consolidated financial statements and expressing an opinion on the conformity of those financial statements with generally accepted accounting principles.

The Audit Committee meets regularly with the independent accountants without management present and also meets in executive session without any others present. The Audit Committee has reviewed the Company's consolidated financial statements for the fiscal year ended September 30, 2011, as audited by its independent auditors, Mayer Hoffman McCann P.C. ("Mayer Hoffman"), and has discussed these financial statements with management. In addition, the Audit Committee has discussed with Mayer Hoffman the matters required to be discussed by the statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1 AU section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T. Furthermore, the Audit Committee has received the written disclosures and the letter from Mayer Hoffman required by applicable requirements of the Public Company Accounting Oversight Board regarding Mayer Hoffman's communications with the Audit Committee concerning independence and has discussed with Mayer Hoffman its independence.

Based upon the foregoing review and discussion, the Audit Committee recommended to our Board of Directors that the audited financial statements for the fiscal year ended September 30, 2011 be included in the Company's Annual Report on Form 10-K for filing with the SEC.

RESPECTFULLY SUBMITTED,

Michael Garnreiter, Chairman  
Alfred W. Giese  
Robert F. King

## PRE-APPROVAL POLICY

In March 2008, the Audit Committee adopted a Pre-Approval Policy (the "Policy") governing the approval of all audit and non-audit services performed by the Company's independent auditor in order to ensure that the performance of such services does not impair the auditor's independence.

According to the Policy, the Audit Committee will annually review and pre-approve the types of services, and will set a limit on the fees for such services, that may be provided by the independent auditor during the following year. The Policy specifically describes the annual audit services and fees, other services that are audit-related, the preparation of tax returns and tax related compliance services and all other services that have the general pre-approval of the Audit Committee. The term of any general pre-approval is twelve (12) months

from the date of pre-approval, unless the Audit Committee specifically provides for a different period.

Any service to be provided by the independent auditor that has not received general pre-approval under the Policy is required to be submitted to the Audit Committee for approval prior to the commencement of a substantial portion of the engagement. Any proposed service exceeding pre-approved cost levels is also required to be submitted to the Audit Committee for specific approval. For the years ended September 30, 2010 and 2011, all services rendered by the Company's independent auditors were pre-approved by the Audit Committee pursuant to the pre-approval Policy.

The Audit Committee will revise the list of general pre-approved services from time to time based on subsequent determinations. The Audit Committee does not delegate its responsibilities to pre-approve services performed by the independent auditor to management.

#### DISCLOSURE OF AUDIT AND NON-AUDIT FEES

The following table sets forth the fees billed to us by our independent auditors for services rendered for the audit of our annual financial statements and the review of our quarterly financial statements for the fiscal years ended September 30, 2011 and 2010, and fees billed during those fiscal years for (i) services by our auditor that are reasonably related to the performance of the audit or review of our financial statements and that are not reported as audit fees, (ii) services rendered in connection with tax compliance, tax advice and tax planning, and (iii) all other fees for services rendered.

|                    | Year Ended<br>Sept. 30, 2011 | Year Ended<br>Sept. 30, 2010 |
|--------------------|------------------------------|------------------------------|
| Audit Fees (1)     | \$ 337,671                   | \$ 295,112                   |
| Audit-Related Fees | —                            | —                            |
| Tax Fees           | —                            | —                            |
| All Other Fees     | —                            | —                            |
| Total Fees         | <u>\$ 337,671</u>            | <u>\$ 295,112</u>            |

- (1) Annual audit of the Company, review of financial statements included the Company's reports on Form 10-Q and Form 10-K, including an audit of the Company's internal control over financial reporting, and services normally provided by the accountant in connection with statutory and regulatory filings.

#### CODE OF ETHICS

The Board of Directors has adopted a Code of Ethics for all employees of the Company, as recommended by the Audit Committee. A copy of this Code of Ethics may be viewed on our website ([www.amtechsystems.com](http://www.amtechsystems.com)), or obtained at no charge by written request to the Company's Corporate Secretary.

#### CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We had no transactions during fiscal 2011, nor are any transactions currently proposed, with any director, director nominee, executive officer, security holder known to us to own of record or beneficially more than 5% of the common stock, or any member of the immediate family of any of the foregoing persons, in which the amount involved exceeded \$120,000.

The policy of the Board is for it, or one of its committees, to review each related person transaction (as defined below) and determine whether it will approve or ratify that transaction. Any Board member who has any interest (actual or perceived) will not be involved in the consideration of Directors.

For purposes of the policy, a "related person transaction" is any transaction, arrangement or relationship in which we are a participant, the related person (defined below) had, has or will have a direct or indirect material interest and the aggregate amount involved is expected to exceed \$120,000 in any calendar year. "Related person" includes (a) any person who is or was (at any time during the last fiscal year) an officer, director or nominee for election as a director; (b) any person or group who is a beneficial owner of more than 5% of our voting

securities; (c) any immediate family member of a person described in provisions (a) or (b) of this sentence; or (d) any entity in which any of the foregoing persons is employed, is a partner or has a greater than 5% beneficial ownership interest.

In determining whether a related person transaction will be approved or ratified, the Board, or committee, will consider a multitude of factors including (a) the extent of the related person's interest in the transaction; (b) the availability of other sources of comparable products or services; (c) whether the terms are competitive with terms generally available in similar transactions with persons that are not related persons; (d) the benefit to us; and (e) the aggregate value of the transaction.

#### SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information concerning the beneficial ownership of our common stock as of January 18, 2012, by (i) each director and executive officer of Amtech, including the named executive officers, (ii) all executive officers and directors of Amtech as a group. The information included in the tables below 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.

| Name and Address (1) (2)       | No. of Shares of Common<br>Stock Beneficially Held (3) |      | Percent of Common Stock<br>Ownership (3) |
|--------------------------------|--|------|--|
| <b>Officers and Directors:</b> |  |      |  |
| Jong S. Whang                  | 186,446  | (4)  | 1.9%                                     |
| Fokko Pentinga                 | 39,167   | (5)  | *  |
| Bradley C. Anderson            | 91,808   | (6)  | *  |
| Robert T. Hass                 | 24,959   | (7)  | *  |
| Michael Garnreiter             | 16,000   | (8)  | *  |
| Alfred W. Giese                | 12,353   | (9)  | *  |
| Egbert J. G. Goudena           | 8,667  | (10) | *  |
| SooKap Hahn                    | —  |      | *  |
| Jeong Mo Hwang                 | 7,020  | (11) | *  |
| Robert F. King                 | 30,000   | (12) | *  |
| Director and Officer Total     | 416,420  | (13) | 4.4%                                     |

\*Less than 1%.

(1) Except as otherwise noted, the address for each person listed in this table is c/o Amtech Systems, Inc., 131 South Clark Drive, Tempe, Arizona 85281.

(2) Mr. Whang is our Executive Chairman and Chairman of the Board of Directors. Mr. Pentinga is our President and CEO and is a director. Mr. Anderson is our Executive Vice President-Chief Financial Officer, Treasurer and Secretary. Mr. Hass is our Vice President and Chief Accounting Officer. Dr. Hwang is our Vice President and Chief Technology Officer. Messrs. Garnreiter, Giese, Goudena, Hahn and King are directors of Amtech.

(3) Based on 9,478,457 shares of common stock outstanding as of January 18, 2012. The share amounts and percentages shown include shares of common stock actually owned as of January 18, 2012, and 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 18, 2012, 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.

- (4) Includes 128,750 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (5) Includes 31,042 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (6) Includes 62,708 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (7) Includes 19,084 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (8) Includes 16,000 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (9) Includes 10,833 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (10) Includes 5,667 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (11) Includes 7,020 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (12) Includes 20,000 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.
- (13) Includes 301,103 shares issuable upon exercise of options exercisable within 60 days of January 18, 2012.

The following table sets forth certain information concerning the beneficial ownership of our common stock based on information received by the Company as of January 18, 2012, by each person known by us to be the beneficial owner of more than 5% of our common stock based on such filings.

| <u>Name and Address of</u>   | <u>No. of Shares of Common<br/>Stock Beneficially Held<sup>(1)</sup></u> | <u>Percent of Common Stock<br/>Ownership<sup>(1)</sup></u> |
|--|--|--|
| <b>5% Shareholders:</b>  |  |  |
| Dimensional Fund Advisors LP<br>Palisades West, Building One, 6300 Bee Cave Road<br>Austin, TX 78746 | 484,843 <sup>(2)</sup>   | 5.1%   |

- (1) Based on 9,478,457 shares of common stock outstanding as of January 18, 2012. The share amounts and percentages shown include shares of common stock actually owned as of January 18, 2012, and 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. Any shares of common stock that the identified person had the right to acquire within 60 days of January 18, 2012, 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.
- (2) Information is based solely on the Schedule 13G, filed on February 11, 2011 with the SEC, by Dimensional Fund Advisors LP ("Dimensional"). Dimensional reported that it is an investment advisor registered under Section 203 of the Investment Advisors Act of 1940. Dimensional furnishes investment advice to four investment companies registered under the Investment Company Act of 1940 and serves as investment manager to certain other commingled group trusts and separate accounts (such investment companies, trusts and accounts, collectively referred to as the "Funds"). Dimensional claims that, neither Dimensional nor its subsidiaries possess voting and/or investment power over the securities held by the Funds. The Schedule 13G states that the report is not an admission that Dimensional is the beneficial owner of any securities covered by the report, and that Dimensional disclaims beneficial ownership of all shares reported. Dimensional considers itself to be an investment adviser in accordance with Section 240.13d-1(b)(1)(ii)(E) of the Securities Exchange Act of 1934 (the "Exchange Act").

#### Section 16(a) Beneficial Ownership Reporting Compliance

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 our outstanding Common Stock, to file certain reports of ownership with 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 our review of such forms received by us during the fiscal year ended September 30, 2011, or written representations

from certain reporting persons, we believe that between October 1, 2010 and September 30, 2011, all Section 16(a) filing requirements applicable to its officers, directors and 10% shareholders were complied with, except that Mr. King failed to timely file with respect to the sale of shares of the Company on December 1, 2010.

**PROPOSAL NO. 2 -- TO APPROVE THE RATIFICATION OF THE INDEPENDENT REGISTERED  
PUBLIC ACCOUNTANTS**

The Audit Committee has selected the independent registered public accounting firm Mayer Hoffman McCann P.C. (Mayer Hoffman) to audit our financial statements for the fiscal year ending September 30, 2012, and is seeking ratification of that choice by our shareholders. Regardless of whether the selection is ratified, the Audit Committee is responsible for the selection and ongoing oversight of the auditors and has the authority to replace Mayer Hoffman as the auditors for the 2012 fiscal year, if it deems it appropriate to do so. Any such change subsequent to the Annual Meeting will not be submitted to the shareholders for ratification.

The Board of Directors anticipates that one or more representatives of Mayer Hoffman will be present at the Annual Meeting. Any such representative will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

**PROPOSAL NO. 3 -- ADVISORY VOTE TO APPROVE NAMED EXECUTIVE OFFICER COMPENSATION**

We are seeking an advisory vote from our shareholders to approve the compensation of our named executive officers. This proposal, commonly known as a "Say on Pay" proposal, gives our shareholders the opportunity to express their views on the compensation of our named executive officers.

Our Compensation and Stock Option Committee establishes our general compensation policies and specific compensation for each of our executive officers, and administers our stock option program. Our Compensation and Stock Option Committee is responsible for developing, administering and interpreting the compensation program for executive officers and other key employees.

Our Compensation and Stock Option Committee's objective is to make the compensation packages of our executive officers sufficient to attract and retain persons of exceptional quality and to provide effective incentives to motivate and reward our executives for achieving our financial and strategic goals, which are essential to our long-term success and growth in shareholder value.

Our compensation programs for our named executive officers are designed to achieve the following objectives:

- attract and retain talented and experienced executives in our industry;
- motivate and reward executives whose knowledge, skills and performance are critical to our success;
- align the interests of our executives and shareholders by rewarding executives when shareholder value increases; and
- motivate our executives to manage our business to meet our short-term and long-term corporate goals and business objectives, and reward them for meeting these objectives.

We use a mix of short-term compensation in the form of base salaries and cash incentive bonuses and long-term compensation in the form of equity incentive compensation to provide a total compensation structure that is designed to encourage our executives to achieve these objectives.

Shareholders are urged to read the Compensation Discussion and Analysis section of this Proxy Statement and the tabular disclosure regarding named executive officer compensation (together with the accompanying narrative disclosure) in this Proxy Statement, which discusses how our compensation policies and procedures implement our compensation philosophy. The Compensation and Stock Option Committee and the Board of Directors believe that these policies and procedures are effective in implementing our compensation philosophy and in achieving its goals.

The Board of Directors believes that the compensation of our named executive officers is appropriate and recommends a vote FOR

the following advisory resolution:

RESOLVED, that the shareholders approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed pursuant to the compensation disclosure rules of the SEC (which disclosure includes the Compensation Discussion and Analysis, the compensation tables and any related material).

Although the advisory vote is non-binding, the Compensation and Stock Option Committee and the Board of Directors will review the results of the vote. The Compensation Committee will consider our shareholders' concerns and take them into account in future determinations concerning our executive compensation program. The Board of Directors therefore recommends that you indicate your support for the compensation policies and procedures for our named executive officers, as outlined in the above resolution.

#### **PROPOSAL NO. 4 -- ADVISORY VOTE ON THE FREQUENCY OF THE VOTE ON COMPENSATION OF THE NAMED EXECUTIVE OFFICERS**

In addition to the non-binding advisory vote on executive compensation, the Dodd-Frank Act also enables our shareholders to express their preference for having a say on pay vote every one, two, or three years or abstain. This non-binding "frequency" vote is required at least once every six years beginning with our Annual Meeting.

After careful consideration of this proposal, our Board has determined that an advisory vote on executive compensation that occurs annually is the most appropriate alternative for the Company, and therefore our Board recommends that you vote for a one-year interval for the advisory vote on executive compensation.

In formulating its recommendation, our Board considered that an advisory vote on executive compensation every year will allow our shareholders to provide us with their direct input on our compensation philosophy, policies and practices as disclosed in the proxy statement every year. Setting a one year period for holding this shareholder vote will enhance shareholder communication by providing a clear, simple means for the Company to obtain information on investor sentiment about our executive compensation philosophy.

You may cast your vote on your preferred voting frequency by choosing the option of one year, two years, three years or abstain from voting when you vote in response to the resolution set forth below.

"RESOLVED, that the option of once every one year, two years, or three years that receives the highest number of votes cast for this resolution will be determined to be the preferred frequency with which the Company is to hold a shareholder advisory vote to approve the compensation of the named executive officers as disclosed pursuant to Item 402 of Regulation S-K."

The option of one year, two years or three years that receives the highest number of votes cast by shareholders will be the frequency for the advisory vote on executive compensation that has been selected by shareholders. However, because this vote is advisory and not binding on the Board in any way, the Board may decide that it is in the best interests of our shareholders and the Company to hold an advisory vote on executive compensation more or less frequently than the option approved by our shareholders.



## OTHER MATTERS

### Annual Report

The Annual Report of the Company for the fiscal year ended September 30, 2011, 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 delivering to our executive offices, to the attention of our corporate Secretary prior to the vote at the Annual Meeting, written notice of revocation or a duly executed proxy bearing a later date, or by attending the Annual Meeting and voting in person.

### Independent Auditors

Our Board of Directors selected the accounting firm of Mayer Hoffman McCann P.C. (Mayer Hoffman) as the Company's independent registered public accountants for the fiscal year ending September 30, 2011 and expects to reappoint them for the fiscal year ending September 30, 2012, immediately following the Annual Meeting. A representative of Mayer Hoffman is expected to be present at the Annual Meeting and will have the opportunity to make a statement if he or she so desires, and will also be available to respond to appropriate questions.

### Deadline for Shareholder Proposals for Action at the Company's Next Annual Meeting

The Company anticipates holding its 2013 Annual Meeting of Shareholders on March 15, 2013. Any shareholder who wishes to present any proposal for shareholder action at the 2013 Annual Meeting of Shareholders must, in addition to complying with any other applicable requirements, including, without limitation, those set forth in Rule 14a-8 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), submit notice of such proposal to the Company's Secretary, at the Company's offices, not later than September 28, 2012, 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 2013 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 12, 2012, as required by SEC Rule 14(a)-4(c)(1), of the intent to raise such proposal at the Annual Meeting of Shareholders, then proxies received by the Company for the 2013 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.

### Shareholder Communications with Board of Directors

The Company does not have formal procedures for shareholder communications with the Board of Directors. However, any matter intended for the Board of Directors or any Board Committee should be directed to the Corporate Secretary of the Company at 131 South Clark Drive, Tempe, Arizona 85281, with a request to forward the same to the intended recipient. All shareholder communications delivered to the Corporate Secretary of the Company for forwarding to the Board of Directors or specified Board members will be forwarded in accordance with the shareholder's instructions.

### NO INCORPORATION BY REFERENCE

In our filings with the SEC, information is sometimes "incorporated by reference." This means that we refer you to information previously filed with the SEC that should be considered as part of the particular filing. As provided under SEC regulations, the "Audit Committee Report" and the "Compensation Committee Report" contained in this Proxy Statement specifically are not incorporated by reference into any other filings with the SEC and shall not be deemed to be "Soliciting Material." In addition, this Proxy Statement includes several website addresses. These website addresses are intended to provide inactive, textual references only. The information on these websites is not part of this Proxy Statement.

### HOUSEHOLDING OF PROXY MATERIALS

The Securities and Exchange Commission permits companies and intermediaries (i.e., brokers) to satisfy the delivery requirements

for proxy statements with respect to two or more security holders sharing the same address by delivering a single proxy statement addressed to those security holders. This process, which is commonly referred to as “householding,” potentially means extra convenience for security holders and cost savings for companies.

If you are currently receiving multiple copies of the Company’s Proxy Statement and Annual Report at your address and would like to request householding of your communications, please contact your broker. Once you have elected householding of your communications, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding, and would prefer to receive a separate Proxy Statement and Annual Report, please notify your broker if you own shares in street name, or direct your written request to Amtech Systems, Inc., 131 South Clark Drive, Tempe, Arizona 85281, Attn: Secretary if you are a shareholder of record. Shareholders currently participating in householding may request additional copies of the Proxy Statement and Annual Report by contacting the Company at (480) 967-5146.

By Order of the Board of Directors:

A handwritten signature in black ink that reads "Bradley C. Anderson". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Bradley C. Anderson, Secretary

Tempe, Arizona  
January 23, 2012

\_\_\_\_\_  
\_\_\_\_\_

**A. ITEMS OF BUSINESS**

1. **ELECTIONS OF DIRECTORS** – The Board of Directors recommends a vote FOR the listed nominees as Directors.

|                         | For                      | Withhold                 |       |
|-------------------------|--------------------------|--------------------------|-------|
| 1. Jong S. Whang        | <input type="checkbox"/> | <input type="checkbox"/> | votes |
| 2. Fokko Pentinga       | <input type="checkbox"/> | <input type="checkbox"/> | votes |
| 3. Michael Garnreiter   | <input type="checkbox"/> | <input type="checkbox"/> | votes |
| 4. Alfred W. Giese      | <input type="checkbox"/> | <input type="checkbox"/> | votes |
| 5. Egbert J. G. Goudena | <input type="checkbox"/> | <input type="checkbox"/> | votes |
| 6. SooKap Hahn          | <input type="checkbox"/> | <input type="checkbox"/> | votes |
| 7. Robert F. King       | <input type="checkbox"/> | <input type="checkbox"/> | votes |

To specify a method of cumulative voting, mark the box to the left with an “X” and write the number of shares you wish to vote in favor of each nominee on the line next to such nominee’s name above.

2. **RATIFICATION OF THE APPOINTMENT OF MAYER HOFFMAN MCCANN P.C. AS THE COMPANY’S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR FISCAL YEAR 2012** - The Board of Directors recommends a vote FOR the ratification of the appointment of Mayer Hoffman McCann P.C.

|                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| For                      | Against                  | Abstain                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. **ADVISORY VOTE TO APPROVE NAMED EXECUTIVE OFFICER COMPENSATION** - The Board of Directors recommends a vote FOR the advisory resolution.

|                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| For                      | Against                  | Abstain                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. **ADVISORY VOTE ON THE FREQUENCY OF THE VOTE ON COMPENSATION OF THE NAMED EXECUTIVE OFFICERS**- The Board of Directors recommends a vote of ONE YEAR.

|                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|
| 3 Years                  | 2 Years                  | 1 Year                   | Abstain                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**B. AUTHORIZED SIGNATURES**

**Sign here – This section must be completed for your instructions to be executed.**

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.

Please sign exactly as your name appears on the front of this proxy card. 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. Please return in the enclosed, postage-paid envelope.

Signature 1 - Please keep signature within the box    Signature 2 - Please keep signature within the box    Date (mm/dd/yyyy)

[ \_\_\_\_\_ ]    [ \_\_\_\_\_ ]    [ \_\_\_\_ / \_\_\_\_ / \_\_\_\_ ]

**PROXY - AMTECH SYSTEMS, INC.**

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS  
OF AMTECH SYSTEMS, INC. FOR THE 2012 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 January 23, 2012, and hereby appoints Jong S. Whang and Bradley C. Anderson, and each or either 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 47<sup>th</sup> Street, Phoenix, Arizona, USA, on Thursday, March 15, 2012, at 9:00 a.m., Arizona 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 on the reverse side.

**This form of proxy confers discretionary authority to cumulate votes with respect to the election of directors.** Unless you have specified on the proxy card how you want your shares voted with respect to the election of directors, the proxy agents intend to cumulatively vote all of the shares covered by the proxies solicited by this Proxy Statement in favor of the number of nominees named in this Proxy Statement as they may, in their discretion, determine is required to elect the maximum number of nominees named in this Proxy Statement.

**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 ON THE REVERSE SIDE AND AS SAID PROXIES DEEM ADVISABLE ON SUCH MATTERS AS MAY COME BEFORE THE MEETING.**