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□

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.

| | AMILLEN STOTEMS, IVC. | |
|---------|---|--|
| | (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. | |
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| (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 or state how it was determined): | h which the filing fee is calculated and |
| (4) | Proposed maximum aggregate value of transaction: | |
| (5) | Total fee paid: | |
| | Fee paid previously with preliminary materials. | |
| | Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offs the previous filing by registration statement number, or the Form or Schedule and the date of its filing. | etting fee was paid previously. Identify |
| (1) | Amount Previously Paid: | |
| (2) | Form, Schedule or Registration Statement No.: | |
| (3) | Filing Party: | |
| (4) | Date Filed: | |
| | | |

AMTECH SYSTEMS, INC. 131 SOUTH CLARK DRIVE TEMPE, ARIZONA 85281

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS TO BE HELD ON MAY 11, 2018

To Our Shareholders:

The 2018 Annual Meeting of Shareholders (the "Annual Meeting") of AMTECH SYSTEMS, INC., an Arizona corporation (the "Company"), will be held at The Tempe Mission Palms Hotel, 60 East 5th Street, Tempe, Arizona, USA, on Friday, May 11, 2018, at 8:00 a.m., Arizona time, for the following purposes:

- 1. To elect six (6) directors to serve for one-year terms or until their successors are elected and qualified;
- To ratify the appointment of Mayer Hoffman McCann P.C. as the Company's independent registered public accountants for the fiscal year endingSeptember 30, 2018;
- 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 advisory vote on the compensation of the Company's named executive officers; and
- 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 shareholders on Form 10-K for the fiscal year endedSeptember 30, 2017 (the "2017 Annual Report") 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 our2017 Annual Report.

The Board of Directors has fixed the close of business on April 2, 2018 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 2017 Annual Report, which includes our audited financial statements, was mailed with this notice and Proxy Statement to all shareholders of record on or about April 11, 2018.

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 the approval of such proposals.

By Order of the Board of Directors:

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Tempe, Arizona April 5, 2018

IMPORTANT: IT IS IMPORTANT THAT YOUR SHARES BE REPRESENTED AND VOTED AT THIS MEETING. PLEASE VOTE YOUR SHARES PROMPTLY BY COMPLETING AND RETURNING YOUR PROXY CARD OR BY VOTING ON THE INTERNET OR BY TELEPHONE.

Robert T. Hass, Secretary

AMTECH SYSTEMS, INC.

PROXY STATEMENT 2018 ANNUAL MEETING OF SHAREHOLDERS

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AMTECH SYSTEMS, INC. 131 SOUTH CLARK DRIVE TEMPE, ARIZONA 85281

PROXY STATEMENT

The Board of Directors, or "Board," of Amtech Systems, Inc., an Arizona corporation (the "Company" or "Amtech"), is soliciting proxies to be used at the2018 Annual Meeting of Shareholders to be held on Friday, May 11, 2018, at 8:00 a.m., Arizona time, and any adjournment or postponement thereof (the "Annual Meeting" or "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 April 11, 2018.

Who Can Vote

Shareholders of record as of the close of business on April 2, 2018 (the "Record Date"), may vote at the Annual Meeting and at any and all adjournments or postponements of the Meeting. On the Record Date, 14,896,004 shares of our common stock, \$0.01 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, which will be held at The Tempe Mission Palms Hotel, 60 East 5th Street, Tempe, Arizona, USA, on Friday, May 11, 2018, at 8:00 a.m., Arizona time.

How to Vote

If your shares are registered directly in your name, you may vote:

Via the Internet. Go to the website www.investorvote.com/ASYS and follow the instructions. You must specify how you want your shares voted or your Internet vote cannot be completed. Votes have to be received no later than 1:00 a.m. Eastern Standard Time the morning of the Meeting.

By Telephone. To vote by phone, call 1-800-652-VOTE (8683) toll free from the U.S. and Canada and follow the instructions. You must specify how you want your shares voted and confirm your vote at the end of the call or your telephone vote cannot be completed. Votes have to be received no later than 1:00 a.m. Eastern Standard Time the morning of the Meeting.

By Mail. Complete and sign the enclosed proxy card and mail it in the enclosed postage prepaid envelope for receipt on or before May 10, 2018. If you execute the proxy but do not specify how you want your shares voted, your shares will be voted in accordance with the recommendations of the Board set forth in the Proxy Statement.



In Person at the Annual Meeting. If you choose to vote in person at the Meeting, you must bring a government-issued proof of identification that includes a photo (such as a driver's license or passport) and either the enclosed proxy card or other verification of your ownership of Common Stock as of the Record Date.

If your shares are held in street name (held for your account by a broker or other nominee):

Your broker, bank or other nominee should give you instructions for voting your shares. You may vote by Internet, telephone or mail as instructed by your broker, bank or other nominee. You may also vote in person if you obtain a legal proxy from your broker, giving you the right to vote your shares at the Meeting and you bring verification of your ownership of Common Stock to the Meeting.

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 six 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 our 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 advisory 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. 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.

Revoking Your Proxy or Changing Your Vote

You may revoke your proxy and/or change your vote at any time before the Meeting.

If your shares are registered directly in your name, you must do one of the following:

Via the Internet or by Telephone. Cast your votes again via the Internet or by telephone by following the directions above. Only the last Internet or telephone vote will be counted.

By Mail. Sign a new proxy card and submit it as instructed above, or send a notice revoking your proxy to the Secretary so that it is received on or before May 10, 2018.

In Person at the Annual Meeting. Attend the Meeting and vote in person. Presence at the Meeting will not revoke your proxy unless you specifically request that your proxy be revoked.



If your shares are held through a broker or other nominee and you would like to change your voting instructions, please follow the instructions provided by your broker.

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 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 of Annual Meeting 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. Our officers and directors 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 shareholders to ensure they have received this Proxy Statement and overseeing the return of proxy cards.

Annual Report

Our Annual Report to Shareholders for the fiscal year endedSeptember 30, 2017 (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.

Compensation and Stock Option and Audit Committee Reports

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 (the "SEC") or subject to Regulations 14A or 14C or to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act.

PROPOSAL NO. 1 – ELECTION OF DIRECTORS

Number of Directors to be Elected

Our Board of Directors will consist of six members. Each director elected will hold office for one year or until his qualified successor is duly 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 six 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 six (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 is responsible for supervision of the overall affairs of the Company. Our current Board has nominated the following individuals to serve on the Board for the following year:

Robert M. Averick Michael Garnreiter Robert F. King Sukesh Mohan Fokko Pentinga Jong S. Whang

Each of these nominees has agreed to be named in this Proxy Statement and to serve if elected. See below for information regarding each of the nominees.

Mr. Jong S. Whang is the father of Mr. Michael Whang, our Vice President of Operations. There are no other family relationships among any of the director nominees or executive officers. Each nominee was recommended by a non-employee director.

Our Board recommends a vote FOR the election of thesix nominees under Proposal No. 1. Our Board 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 solicits authority to cumulate such votes.

If any nominee should become unavailable for any reason, which we do not anticipate, the proxy will be voted "for" any substitute nominee, or nominees, who may be selected by the Board 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 shareholdings 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 individuals nominated to serve as directors of Amtech as of the date of this filing.

| Name | Age | Position with the Company |
|--------------------|-----|---|
| Jong S. Whang | 72 | Executive Chairman and Director |
| Fokko Pentinga | 63 | President, Chief Executive Officer and Director |
| Robert T. Hass | 68 | Vice President - Chief Financial Officer, Treasurer and Secretary |
| Robert M. Averick | 52 | Director |
| Michael Garnreiter | 66 | Director |
| Robert F. King | 84 | Director |
| Sukesh Mohan | 51 | Director |
| Michael Whang | 46 | Vice President of Operations |
| Lisa Gibbs | 44 | Vice President and Chief Accounting Officer |

Jong S. Whang has been a Director since our inception in 1981, and Mr. Whang is one of our founders. Mr. Whang served as our Chief Executive Officer since our inception until January 2012, when Mr. Pentinga was promoted to that position. Since January 2012, Mr. Whang has served as our Executive Chairman and Chairman of the Board. In addition, Mr. Whang previously served as our President until March 2010, when Mr. Pentinga was promoted to that position. Mr. Whang's responsibilities include establishing the strategic vision for Amtech and assisting in the marketing effort for our solar and semiconductor equipment business and business opportunities in those industries. He has over 40 years of experience in the solar and semiconductor industries, including time spent in both processing and manufacturing of equipment systems. Mr. Whang brings extensive senior management experience and knowledge of our Company and the markets we serve to the Board of Directors. The Board of Directors believes 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. Mr. Whang is the father of Michael Whang, Amtech's Vice President of Operations.

Fokko Pentinga has been our Chief Executive Officer since January 2012 and our President since March 2010. From December 2008 until his promotion to President in March 2010, Mr. Pentinga served as Managing Director of Amtech Europe, which was comprised of our two European subsidiaries at that time, 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 benefits significantly from Mr. Pentinga's participation due to his extensive experience with the Company and in the markets we serve.

Robert T. Hass has been our Chief Financial Officer since November 2016 and, prior to that, served as Interim Chief Financial Officer since April 2016. Mr. Hass previously served as our Chief Financial Officer from June 1992 to April 2006, Chief Accounting Officer from April 2006 to June 2013 and as a director from February 1996 to March 2006. Since July 2013, he has served as our Vice President. Prior to joining Amtech, Mr. Hass held various senior management roles in finance. 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.

Robert M. Averick has been a Director since January 2016. Mr. Averick has over 15 years of experience as a small-capitalization, value-driven public equity portfolio manager. His previous work experience includes positions of increasing responsibility within structured finance, strategic planning and consulting. Mr. Averick received an

undergraduate degree in Economics from The University of Virginia and a Masters in Business Administration in Finance from The University of Pennsylvania, The Wharton School of Business. Mr. Averick and certain entities to which his employer provides investment management services currently own in excess of 16% of Amtech's outstanding shares. He previously served on our Board during 2005 and 2006. Mr. Averick serves as a member of our Audit, Compensation and Stock Option, and Technology Strategy Committees. Mr. Averick's experience in finance and strategy planning allows him to provide valuable advice to the Board of Directors and the Committees on which he serves.

Michael Garnreiter has been a Director since February 2007. He is the Chairman of our Audit and Nominating and Governance Committees, and serves as a member of our Compensation and Stock Option and Technology Strategy Committees. Mr. Garnreiter is our designated financial expert on the Audit Committee. He retired in December 2015 as Vice President of Finance and Treasurer of Shamrock Foods, a privately-held manufacturer and distributor of foods and food-related products. From January 2010 until August 2012, Mr. Garnreiter was a managing director of Fenix Financial Forensics, a Phoenix-based litigation and 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. 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. Mr. Garnreiter serves on the boards of directors of Axon Enterprise, Inc. (as Chairman), a manufacturer of non-lethal protection devices, Knight-Swift Transportation Holdings Inc., a nationwide truckload transportation company, and Banner Health, a multi-state health care delivery system. 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.

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 with respect to our overall business. Mr. King serves as Chairman of our Compensation and Stock Option Committee and also provides the Board with technical and financial advice as a member of our Audit, Nominating and Governance, and Technology Strategy Committees.

Sukesh Mohan has been a Director since April 2015. He is currently Vice President and Co-Founder of El Camino Technologies, LLC, a software services company that manages online content for leading internet companies. Prior to this, Mr. Mohan was Director of Product Management, Etch Products Division, of Applied Materials, Inc. ("Applied"), a global leader in semiconductor and solar equipment. He held various product management and marketing positions at Applied from 1995 to 2009. From 1989 to 1995, Mr. Mohan was the International Marketing Manager for Amtech, responsible for market development in Asia and India. He received his MBA from the University of Pittsburgh and graduated from the Indian Institute of Technology with a Bachelor of Technology. Mr. Mohan's experience will allow him to advise the Board of Directors with respect to strategic direction, product roadmaps and business development. Mr. Mohan serves as Chairman of our Technology and Strategy Committee and also serves as a member of our Audit and Compensation and Stock Option Committees.

Michael Whang joined the Company in April 2004 as Director of Information Technology and Risk Management. In May 2016, Michael Whang was promoted to Chief Risk Officer and Chief Information Officer. His responsibilities at Amtech included roles in corporate strategy and operations, compliance, and M&A due diligence and postacquisition activity, culminating in operational oversight of the USA Operations. He was promoted to Vice President of Operations (Principal Operating Officer) on January 4, 2018. Prior to joining Amtech, Michael Whang served in various information technology management roles at several technology corporations. Michael Whang is the son of Jong S. Whang, Amtech's founder and Executive Chairman.

Lisa Gibbs joined Amtech in September 2016 as Corporate Controller and was promoted to Vice President and Chief Accounting Officer (Principal Accounting Officer) on January 4, 2018. Prior to joining Amtech, Ms. Gibbs was a partner in a private consulting firm where she assisted clients with a variety of accounting and finance needs. From 2002 to 2014, Ms. Gibbs was the Vice President of Internal Audit for Insight Enterprises, Inc, a Fortune 500 publicly-traded information technology company. Ms. Gibbs began her career in public accounting with Arthur Andersen LLP. She is a Certified Public Accountant in the State of Arizona.

Information About Board and Committee Meetings

Information concerning our Board and the four committees maintained by our Board is set forth below. Pursuant to NASDAQ and SEC rules, during fiscal2017 the majority of our directors were not employees of the Company and were "independent" within the meaning of the NASDAQ Listing Rules and SEC standards. Importantly, all members of the Audit, Compensation and Stock Option, and Nominating and Governance Committees are independent. Currently, our independent directors are Robert M. Averick, Michael Garnreiter, Robert F. King and Sukesh Mohan. 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."

Our Board of Directors held four (4) meetings during fiscal year2017. No director attended less than 75% of the aggregate of all Board meetings held while he served as such director and 75% of all committee meetings on which he served as a committee member. Our Board has the authority under our Amended and Restated Bylaws, as amended, 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 our next annual meeting or until their successors are elected and qualified. We do not have a formal policy with respect to members of the Board attending our annual meetings. All of Board members attended the 2017 annual meeting.

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 as of April 5, 2018, are as follows:

Audit - Michael Garnreiter (Chairman), Robert M. Averick, Robert F. King, and Sukesh Mohan

Compensation and Stock Option - Robert F. King (Chairman), Robert M. Averick, Michael Garnreiter, and Sukesh Mohan

Nominating and Governance - Michael Garnreiter (Chairman), Robert F. King and Sukesh Mohan

Technology Strategy - Sukesh Mohan (Chairman), Robert M. Averick, Michael Garnreiter, Robert F. King, Fokko Pentinga and Jong S. Whang

The Audit Committee held six (6) meetings during fiscal year2017. The Audit Committee assists the Board of Directors in fulfilling its oversight responsibilities with respect to the independent auditors and members of financial management, and our financial affairs, including financial statements and audits, the adequacy and effectiveness of the internal accounting controls and systems, compliance with legal and regulatory requirements, and the retention and termination of the independent registered public accounting firm. The Audit Committee has a written charter, a copy of which is available on our website at 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 NASDAQ Listing Rules and SEC standards, 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 one (1) meetings during fiscal year2017. The Compensation and Stock Option Committee makes recommendations concerning officer compensation, benefit programs and retirement plans. Each member of the Compensation and Stock Option Committee is an "independent director" as defined in the NASDAQ Listing Rules and SEC standards. The Compensation and Stock Option Committee has a written charter, a copy of which is available on our website at www.amtechsystems.com.

The Nominating and Governance Committee held one (1) meeting during fiscal year2017. 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 reviews whether a prospective nominee will meet our independence standards and any other director or committee membership requirements imposed by law, regulation or stock exchange rules. The Nominating and Governance Committee will consider, but is not required to approve, director nominations made by our shareholders, provided a written recommendation is received by us 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 also develops and recommends corporate governance guidelines to the Board and provides oversight with respect to ethical conduct. Each member of the Nominating and Governance Committee is an "independent director" as defined in the NASDAQ Listing Rules and SEC standards. The Nominating and Governance Committee has a written charter, a copy of which is available on our website at www.amtechsystems.com.

The Technology Strategy Committee held one (1) meeting during fiscal year2017. The Technology Strategy Committee assists the Board of Directors in understanding and evaluating our technology strategy and evaluating potential acquisitions of new technology.

Board Leadership Structure

Mr. Whang, serves as our Executive Chairman of the Board of Directors ("Chairman") and Mr. Pentinga serves as our Chief Executive Officer ("CEO"). We do not have a policy regarding the combination or separation of the Chairman and CEO roles. Our 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 CEO allows Mr. Whang to focus on strategic direction and external growth opportunities while Mr. Pentinga, in the role of CEO, focuses on our operations to transform and sustain innovation within the Company. We believe this enhances the ability of each to discharge his duties effectively. For these reasons, we believe our Board leadership structure is appropriate and is in the best interest of the Company and its shareholders.

The Board has not designated a lead independent 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 independent director at this time.

Board's Role in Risk Oversight

Our 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. 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. The Technology Strategy Committee focuses on the management of risks associated with emerging and competing technologies within the markets we serve.



While the committees of our Board 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 regarding the risk considerations within each committee's area of expertise. Periodic reports are provided to the Board or the appropriate committee by the executive management team on areas of material risk, including operational, financial, legal, regulatory and strategic risks. In addition, the general management and operating leadership of each of our divisions and subsidiaries review, with the full Board, their individual assessment of business risks and their approach to manage those risks. The Board relies upon these reports, and its discussions relating to such reports, to enable it to understand our strategies for the identification, management and mitigation of risks. This enables the Board and its committees to coordinate its risk oversight role. The Board's approach to risk oversight does not directly affect the leadership structure of our Board of Directors, as described above.

DIRECTOR COMPENSATION

The following table shows the total dollar value of all fees earned and paid in cash to all directors in fisca 2017 and the grant date fair value of stock awards to directors made in fiscal 2017.

| | Fees E | arned or Paid in | | | | |
|----------------------------|--------|------------------|----|----------------------|---------------------|--------------|
| Name | | Cash | 0 | ption Awards (1) (5) | All Other Comp. | Total |
| Jong S. Whang (2) | \$ | — | \$ | _ | \$ — | \$ |
| Fokko Pentinga (2) | \$ | — | \$ | — | \$ — | \$ — |
| Paul van der Wansem (2)(3) | \$ | _ | \$ | 20,317 | \$ — | \$ 20,317 |
| Robert M. Averick | \$ | 20,250 | \$ | 20,317 | \$ — | \$ 40,567 |
| Michael Garnreiter | \$ | 44,050 | \$ | 20,317 | \$ — | \$ 64,367 |
| Egbert J.G. Goudena (4) | \$ | 5,000 | \$ | — | \$ — | \$ 5,000 |
| Robert F. King | \$ | 29,050 | \$ | 20,317 | \$ — | \$ 49,367 |
| Sukesh Mohan | \$ | 26,250 | \$ | 20,317 | \$ — | \$ 46,567 |

(1) Amounts represent the aggregate grant date fair value computed in accordance with FASB ASC Topic 718. For a description of the assumptions made when calculating such grant date fair value, refer to Note 8 of the consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended September 30, 2017 filed with the SEC on November 20, 2017.

(2) Directors who are full-time employees of the Company receive no additional compensation for serving as directors. Directors who are not independent within the meaning of the NASDAQ Listing Standards and SEC Rules received no additional compensation for serving as directors after March 9, 2016.

- (3) Mr. van der Wansem resigned from the Board effective March 14, 2018.
- (4) Mr. Goudena's term expired at the 2017 Annual Meeting.
- (5) As of September 30, 2017, Messrs. Garnreiter, King, Mohan and van der Wansem held 2,000, 2,000, 2000 and 14,000 unvested stock options, respectively.

Directors who are full-time employees of the Company receive no additional compensation for serving as directors. Directors who are not independent within the meaning of the NASDAQ Listing Standards and SEC Rules received no additional compensation for serving as directors after March 9, 2016. Non-employee, independent directors receive:

- an annual retainer of \$8,000,
- 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.

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. 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 to the cash payments listed above, 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 equal to the closing price of our common stock the previous trading day before the date of grant. Each option has a term of ten years and becomes exercisable on the six month anniversary of the date of the grant, or such other date as determined by the Board. 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.

Compensation Committee Interlocks and Insider Participation

The Compensation and Stock Option Committee is presently comprised of Messrs. Robert M. Averick, Michael Garnreiter, Robert F. King (Chairman), and Sukesh Mohan who are neither current officers, current employees nor former officers 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 three 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 during fiscal year 2017 were:

Jong S. Whang Executive

Chairman

- Fokko Pentinga President and Chief Executive Officer
- Robert T. Hass Vice President and Chief Financial 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 2017 to our named executive officers.

Executive Summary

Recap of Fiscal Year 2017

We believe that the compensation of our named executive officers should facilitate the achievement of annual corporate goals as well as the performance of long-term business objectives. Our customers are primarily manufacturers of solar cells and integrated circuits. The solar cell and semiconductor industries are cyclical and historically have experienced significant fluctuations. Our revenue is impacted by these broad industry trends. Since 2012, the solar cell industry has experienced a structural imbalance between supply and demand. This imbalance has increased competitive pressure on selling prices and negatively impacted our results of operations. In fiscal 2017 we secured large orders for the first two phases of a multi-phase turnkey project from a new solar cell manufacturer in China. Shipment of Phase I of the turnkey order and strong shipments of semiconductor products led to strong financial results for fiscal 2017. For solar equipment orders that are not part of turnkey projects, we compete with Chinese equipment manufacturers that offer lower prices coupled with liberal payment terms. We are finding it more difficult to participate in the capacity expansions of those Chinese companies that already have significant experience with all facets of producing solar cells and at least some prior experience working with the local equipment vendors.

For fiscal 2017, we believe our executive compensation programs delivered payouts commensurate with our results of operations and overall Company performance in that we had increased revenue and profits compared to fiscal 2016; however, we continued to experience challenges in our non-turnkey solar equipment business. We also believe that for fiscal 2017, our executive compensation programs delivered payouts commensurate with individual roles and responsibilities and individual experience and skills.

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

In November 2015, the Compensation and Stock Option Committee engaged the services of Pearl Meyer, an independent compensation consulting firm, to perform a competitive analysis of the compensation of our named executive officers. We did not engage a compensation consultant for fiscal 2017; however, we considered the methodology and results of



the November 2015 analysis when reviewing and approving all compensation policies for fiscal 2017 relating to the named executive officers.

Based on a comprehensive review of Amtech's compensation compared to our peer group companies with similar annual revenues in the November 2015 analysis, Pearl Meyer determined that Amtech's actual direct compensation, which includes base salary, short-term incentives and long-term incentives, was below the 25th percentile of our peer group companies. Base salary was 14% below the 25th percentile of our peer companies, while long-term incentive was 9% below the 25th percentile of our peers. Total direct compensation was 23% below the 25th percentile of our peers. The peer group was composed of the following companies:

Electro Scientific Industries Inc. Axcelis Technologies Inc. Cascade Microtech Inc. Cohu, Inc. CVD Equipment Corporation FormFactor Inc. inTEST Corp. Mattson Technology Inc. Nanometrics Incorporated Ultratech, Inc. Xcerra Corporation Intevac Inc.

For fiscal 2017 executive compensation, our Compensation and Stock Option Committee considered the findings from the Pearl Meyer review, our operating results for fiscal 2016, and our strategic challenges in our non-turnkey solar equipment business. Based upon these considerations, the consensus of the Compensation and Stock Option Committee was to maintain base salaries at the fiscal 2016 levels, cash incentive bonus payments were awarded under our non-equity incentive bonus plan commensurate with the Company's performance. However, no equity grants were awarded for fiscal 2017 because the Committee determined that each of the executive officers still had a significant number of incentive stock options that should continue to motivate them.

At our 2017 Annual Meeting of Shareholders, we held a non-binding advisory vote on the compensation of our NEOs, commonly known as a say-on-pay vote. Our shareholders approved the say-on-pay resolution by a favorable vote of approximately 88% of the votes cast, including abstentions. Based upon our review of our compensation policies and based upon the results of the say-on-pay vote, we decided to generally retain our current approach to executive compensation with some changes to the cash bonus plan for fiscal 2018 to align the metrics to our most important strategic goals.

Based upon a separate advisory vote at the 2012 Annual Meeting of Shareholders on the frequency of the say-on-pay vote, shareholders indicated their preference for an annual advisory vote on the compensation of our NEOs. Taking into account the shareholders' vote, the Board determined that we will conduct a non-binding advisory vote to approve the compensation of our NEOs on an annual basis. Therefore, a shareholder advisory vote on executive compensation will be held at the 2018 Annual Meeting of Shareholders. Also at the 2018 Annual Meeting of Shareholders, we will hold an additional advisory vote to reassess the frequency of the say-on-pay vote, as such vote on the frequency of the say-on-pay vote is required every sixth calendar year.

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 incentive program. In addition, our Compensation and Stock Option Committee is responsible for developing, administering and interpreting the compensation program for our named 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 under NASDAQ Listing Rule 5605(a)(2) 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. As noted above, in November 2015, the Compensation and Stock Option Committee engaged the services of Pearl Meyer, an independent compensation consulting firm, to perform a competitive analysis of the compensation of our named executive officers. For fiscal 2017, we continued to take into consideration the results of Pearl Meyer's November 2015 analysis when reviewing and approving all compensation policies for fiscal 2017 relating to the named executive officers.

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, 2017 consisted of three main components: base salary, incentive cash bonuses and equity incentives. The consensus of the Committee was that 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, typically constitutes a significant portion of our total executive compensation. In determining compensation levels, our Compensation and Stock Option Committee granted to our executives in fiscal 2017 significant cash bonuses under our non-equity incentive bonus plan to recognize the performance of the Company and individual NEOs. As indicated in the "Outstanding Equity Awards at Fiscal Year End" table below, as of September 30, 2017, Messrs. Whang, Pentinga and Hass held equity grants of 219,167, 282,917 and 49,384 stock options, respectively, and it was the consensus of the Committee that the potential increase in the value of those stock options provides the long-term incentives to motivate future performance aligned with shareholders' interests.

Within the context of the overall objectives of our compensation programs, the Compensation and Stock Option Committee determined the specific amounts of compensation to be paid to each of our executives in fiscal year 2017 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 our executives salaries competitive with those of other executives in the industry in which we operate. To that end, they periodically evaluate the competitiveness of base salaries against our peer group based on available information drawn from a variety of sources, including published and proprietary survey data, input and recommendations from independent compensation consultants and our own experience recruiting and retaining executives. Our base salary levels are intended to be consistent with competitive practice and level of responsibility, with salary increases or decreases 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 adjusted at other times if a change in the scope of the executive's responsibilities justifies such consideration or in order to maintain salary equity among executive officers. Elements of individual performance that are taken into account with regard to base compensation include individual accomplishments, such as a track record of leadership, implementing new product lines, executing and integrating acquisitions, meeting financial objectives, taking on additional responsibilities, or managing risks and corporate governance, as well as individual contribution to overall company financial performance, such as creating operating efficiencies or implementing policies or transactions that increase shareholder value. 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 executive's 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 our non-equity incentive bonus plan.

The primary objectives of our discretionary bonuses and non-equity incentive bonus plan are to incentivize 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 named executive officer in determining year-end incentive bonuses, if any. In addition, our Compensation and Stock Option Committee may recommend discretionary bonuses for particular contribution to our goals 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 2017 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 are equally weighted and 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 2017 was 80% of his base salary, or \$160,000; Mr. Pentinga's target bonus for fiscal 2017 was 75% of his base salary, or \$244,200; and Mr. Hass' target bonus was 55% of his base salary, or \$123,750. The bonuses of the named executive officers were calculated solely based upon the performance objectives at the corporate level. If fiscal 2017 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 \$32,000, Mr. Pentinga's bonus calculation would be \$48,840, and Mr. Hass' bonus calculation would be \$24,750. If fiscal 2017 performance was 150% (110% with respect to gross margin) of performance objectives in all corporate performance categories, Mr. Whang's bonus calculation would be \$32,000, Mr. Pentinga's bonus calculation would be \$48,840, and Mr. Hass' bonus calculation would be \$24,750. If fiscal 2017 performance was 150% (110% with respect to gross margin) of performance objectives in all corporate performance categories, Mr. Whang's bonus calculation would be \$32,000, Mr. Pentinga's bonus calculation would be \$48,840, and Mr. Hass' bonus calculation would be \$24,750. If fiscal 2017 performance was 150% (110% with respect to gross margin) of performance objectives in all corporate performance categories, Mr. Whang's bonus calculation would be \$3260,000, Mr. Pentinga's bonus calculation w

Notwithstanding the calculation of any bonus amount under the fiscal 2017 bonus plan, (i) no bonuses would have been payable based on achievement of corporate level objectives if consolidated operating profit was less than 3%; and (ii) all bonus payments were subject to the discretionary approval of our Compensation and Stock Option Committee.

For fiscal 2017, based on the above metrics, 128.5% of the targeted bonuses were earned pursuant to the non-equity incentive bonus plan: Mr. Whang - \$205,600; Mr. Pentinga - \$260,000; and Mr. Hass - \$159,000. Since Mr. Whang took a voluntary pay reduction from \$400,000 to \$200,000 in November 2015, and target bonuses are calculated using base salaries, our Compensation and Stock Option Committee used its discretion to adjust bonuses to \$260,000 for both Mr. Pentinga and Mr. Hass' bonus remained unchanged at \$159,000.

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 contributions to our long-term success and to the commitment of such executives to the interests of our shareholders. 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 does not apply a formula in allocating stock options or restricted stock to our named executive officers as a group or to any particular executive. Instead, our Board exercises its judgment and discretion when granting equity incentive awards 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 previously granted and outstanding.

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 2007 Employee Stock Incentive Plan, as amended, effective April 9, 2015. The vesting period and restricted period provide added incentive for the executive to continue his or her employment with us and to strive to improve our business performance.

In fiscal 2017, we granted options to purchase a total of 145,000 shares of common stock, of which options to purchase a total of 10,000 shares were granted to one of our named executive officers (Robert T. Hass), representing 7% of all options granted in fiscal 2017. Mr. Hass' options were granted upon his appointment to Chief Financial Officer from Interim Chief Financial Officer on November 10, 2016. In fiscal 2017, we granted no other options to purchase common stock to our named executive officers, and there were no grants of shares of restricted stock. The Compensation and Stock Option Committee reviewed company performance and other factors. The consensus of the Committee was that the significant number of previously granted stock options currently held by the executive officers should be considered, and the Committee determined not to award additional equity awards. The number of stock options and shares of restricted stock granted to each executive is set forth in the "Outstanding Equity Awards at Fiscal Year End" table below. In summary, as of September 30, 2017, Messrs. Whang, Pentinga and Hass held equity grants of 219,167, 282,917 and 49,384, respectively. 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 closing price of our common stock on the previous trading day before the grant date.

Benefits

All of our named executive officers are eligible to receive an automobile allowance as well as benefits offered to employees generally, including life, health, disability and dental insurance and to participate our 401(k) plan. Our named executive officers are also eligible to participate in the Mayo Executive Health Plan. In addition, our Chief Executive Officer participates in Pensioenfonds Metaal en Techniek, a multi-employer pension plan that generally covers all our employees in the Netherlands. Consistent with our compensation philosophy, it 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 named executive officers have employment agreements that provide various benefits triggered by employment-related actions such as termination without cause, resignation with good reason and/or termination without cause following a change in control. See "Employment Agreement with Executive Chairman," "Employment Agreement with Chief Executive Officer" and "Employment Agreement with Chief Financial Officer" below for a description of such provisions. Each of the employment agreements has been amended to ensure compliance with Section 409A of the Internal Revenue Code (the "IRC").

In setting the terms of and determining whether to approve these severance and change in control arrangements, our Compensation and Stock Option Committee or our 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. However, none of the benefits provided by the severance and change in control arrangements are triggered by a change in control if our named executive officer's employment is terminated for cause.

Other Compensatory Arrangements

In connection with the merger with BTU International, Inc. ("BTU"), Paul van der Wansem, BTU's Chairman, President and Chief Executive Officer, entered into a one-year employment agreement with Amtech, which term commenced on January 31, 2015, the first day after completion of the merger. Mr. van der Wansem's employment with BTU was terminated immediately following the effective time of the merger. Mr. van der Wansem served as a member of the Management Executive Committee for a one-year term, with an annual salary of \$350,000, and was provided with health insurance and other benefits in effect for executives of Amtech including an automobile allowance. He also received a grant of 30,000 options on January 30, 2015, which vested equally over each of the first three anniversaries of the grant date subject to Mr. van der Wansem's consulting agreement with Amtech commencing upon expiration of the employment agreement and which provides compensation of \$22,083 per month, which expired January 30, 2018. At the effective date of the merger, Amtech also nominated Mr. van der Wansem to its Board of Directors. Mr. van der Wansem resigned from the Company's Board of Directors effective March 14, 2018.

Accounting Treatment of 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.



REPORT OF COMPENSATION AND STOCK OPTION COMMITTEE

The information contained in the following report shall not be deemed to be "soliciting material" or "filed" with the SEC, nor shall it be subject to the liabilities of Section 18 of the Exchange Act, except to the extent that we specifically incorporate it by reference into a document filed under the Securities Act or the Exchange Act.

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,

Robert F. King, Chairman Michael Garnreiter Robert M. Averick Sukesh Mohan

SUMMARY COMPENSATION TABLE

The following table sets forth information regarding compensation for services rendered to Amtech during the fiscal years endedSeptember 30, 2017, 2016 and 2015 by our named executive officers.

| | | | Bonus (\$) | Option Awards | Non-Equity Incentive Plan Compensation (\$) | All Other | |
|-----------------------------|------|-------------|------------|------------------|---|-------------------|------------|
| Name and Principal Position | Year | Salary (\$) | (1) | (\$) (2) | (3) | Compensation (\$) | Total (\$) |
| Jong S. Whang | 2017 | 200,000 | 54,400 | _ | 205,600 | 37,631 (4) | 497,631 |
| Executive Chairman | 2016 | 268,462 | | 151,720 | | 35,226 (5) | 455,408 |
| and Director | 2015 | 362,769 | 50,000 | 304,495 | _ | 30,151 (6) | 747,415 |
| Fokko Pentinga | 2017 | 324,719 | | | 260,000 | 58,599 (7) | 643,318 |
| Chief Executive | 2016 | 379,599 | — | 151,720 | — | 49,653 (8) | 580,972 |
| Officer and Director | 2015 | 342,126 | 50,000 | 304,495 | | 47,674 (9) | 744,295 |
| Robert T. Hass * | 2017 | 231,500 | | 27,096 | 159,000 | 8,250 (10) | 425,846 |
| Chief Financial Officer | 2016 | 167,221 | — | 15,172 | — | 6,689 (11) | 189,082 |

* As previously disclosed on Form 8-K filed with the SEC on February 25, 2016, Mr. Hass was appointed Interim Chief Financial Officer effective April 1, 2016 and later, as disclosed on Form 8-K filed with the SEC on November 16, 2016, Mr. Hass was appointed Chief Financial Officer effective November 10, 2016.

- (1) Represents discretionary cash bonuses awarded on November 18, 2014 and November 16, 2017. No discretionary cash bonuses were awarded for fiscal 2016.
- (2) Amounts represent the aggregate grant date fair value calculated in accordance with FASB ASC Topic 718. For a description of the assumptions made when calculating such grant date fair value, refer to Note 8 of the consolidated financial statements included in our Annual Report on Form 10-K for fiscal 2017.
- (3) Non-Equity Incentive Plan Compensation represents bonuses earned by executives under the 2017 cash incentive plan. The cash incentive plan compensation for 2017 was paid to the named executive officers prior to December 31, 2017.
- (4) 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, a discretionary contribution to his health reimbursement account and Company match under the 401(k) plan. We consider the cost of the car allowance and life insurance premiums to be perquisites.
- (5) Amount represents car allowance of \$18,692, \$10,809 of life insurance premiums paid by the Company for which Mr. Whang's spouse is the beneficiary, a discretionary contribution to his health reimbursement account and Company match under the 401(k) plan. We consider the cost of the car allowance and life insurance premiums to be perquisites.
- (6) Amount represents car allowance of \$14,192, \$10,809 of life insurance premiums paid by the Company for which Mr. Whang's spouse is the beneficiary, a discretionary contribution to his health reimbursement account and Company match under the 401(k) plan. We consider the cost of the car allowance and life insurance premiums to be perquisites.
- (7) Amount represents car allowance of \$32,951, Company contribution under the 2017 Netherlands pension plan of \$16,689, value received for spousal travel expenses and Company-paid tax preparation fees. We consider the cost of the car allowance, value received for spousal travel expenses and Company-paid tax preparation fees to be perquisites.
- (8) Amount represents car allowance of \$32,888, Company contribution under the 2016 Netherlands pension plan of \$16,175 and Company-paid tax preparation fees. We consider the cost of the car allowance and Company-paid tax preparation fees to be perquisites.
- (9) Amount represents car allowance of \$28,302, Company contribution under the 2015 Netherlands pension plan of \$18,877 and Company-paid tax preparation fees. We consider the cost of the car allowance and Company-paid tax preparation fees to be perquisites.



- (10) Amount represents car allowance and discretionary contribution to Mr. Hass' health reimbursement account. We consider the cost of the car allowance, which did not exceed \$10,000, to be a perquisite.
- (11) Amount represents car allowance, discretionary contribution to Mr. Hass' health reimbursement account and travel incentive payments. We consider the cost of the car allowance, which did not exceed \$10,000, to be a perquisite.

GRANTS OF PLAN-BASED AWARDS

The following table sets forth grants of plan-based awards made to our named executive officers in fiscal2017 and related fair value compensation for fiscal2017:

| | | | Estimated Fu Ince | Payouts Und e Plan Award | 1 2 | | | | | | |
|-------------------|----------------|--|----------------------|-----------------------------|---------------|---|---|----|---|----------|---|
| Name | Grant Date (1) | Date Grant Approved by Board (1) | Threshold | Target | Maximum | All Other Stock Awards: Number of Shares of Stock or Units (#) | All Other Option Awards: Number of Securities Underlying Options (#) (1) | В | Exercise or ase Price of Options Awards (\$/Sh) (2) | Fai S | rant Date ir Value of tock and Option wards (3) |
| Jong S. Whang | | | \$ 32,000 | \$ 160,000 | \$ 260,000 | | | \$ | _ | \$ | |
| Fokko Pentinga | | | \$ 48,840 | \$ 244,200 | \$ 396,825 | _ | _ | \$ | _ | \$ | _ |
| Robert T. Hass | | | \$ 24,750 | \$ 123,750 | \$ 201,094 | | _ | \$ | _ | \$ | _ |
| | 11/10/2016 | 11/10/2016 | \$ _ | \$ — | \$ — | — | 10,000 | \$ | 4.71 | \$ | 27,096 |

(1) The option awards listed above vest in four (4) installments in equal amounts on each of the first four anniversaries of the date of grant.

(2) The exercise price is equal to the closing price of our Common Stock on the previous trading day before the grant.

(3) Refer to Note 8 of the consolidated financial statements included in our Annual Report on Form 10-K for fisca 2017 filed with the SEC November 20, 2017, for the assumptions used to value equity-based compensation.

(4) Estimated amounts are based on the annual base salaries of \$200,000, \$325,600, and \$225,000 for Messrs. Whang, Pentinga, and Hass, respectively.

EQUITY COMPENSATION PLAN INFORMATION

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The following table sets forth information regarding grants of plan-based option awards held by our named executive officers as ofSeptember 30, 2017:

| | | Option A | Award | ds | | Stock | Awards |
|----------------|--|--|-------|-----------------------------------|---------------------------|--|---|
| Name | 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. | 10,000 | | - | \$6.15 | 11/20/2019 | | |
| Whang | 10,000 | _ | | \$10.64 | 8/6/2020 | | |
| C | 36,667 | _ | | \$7.98 | 12/15/2021 | | |
| | 12,500 | _ | | \$2.95 | 12/11/2022 | | |
| | 37,500 | 12,500 | (1) | \$7.01 | 12/12/2023 | | |
| | 25,000 | 25,000 | (2) | \$9.98 | 11/19/2024 | | |
| | 12,500 | 37,500 | (3) | \$5.25 | 11/17/2025 | | |
| Fokko | 18,750 | _ | | \$3.80 | 12/9/2018 | | |
| Pentinga | 10,000 | — | | \$6.15 | 11/20/2019 | | |
| | 6,667 | — | | \$10.64 | 8/6/2020 | | |
| | 85,000 | — | | \$7.98 | 12/15/2021 | | |
| | 12,500 | — | | \$2.95 | 12/11/2022 | | |
| | 37,500 | 12,500 | (1) | \$7.01 | 12/12/2023 | | |
| | 25,000 | 25,000 | (2) | \$9.98 | 11/19/2024 | | |
| | 12,500 | 37,500 | (3) | \$5.25 | 11/17/2025 | | |
| Robert T. Hass | 3,884 | — | | \$3.80 | 12/9/2018 | | |
| | 2,667 | — | | \$6.15 | 11/20/2019 | | |
| | 1,333 | _ | | \$10.64 | 8/6/2020 | | |
| | 5,000 | — | | \$7.98 | 12/15/2021 | | |
| | 11,500 | _ | | \$2.95 | 12/11/2022 | | |
| | 5,000 | — | | \$7.01 | 12/12/2023 | | |
| | 5,000 | — | | \$9.98 | 11/19/2024 | | |
| | 2,500 | 2,500 | (3) | \$5.25 | 11/17/2025 | | |
| | — | 10,000 | (4) | \$4.71 | 11/10/2026 | | |
| | | | | | | | |

(1) Unvested option awards will vest in equal installments on the first through fourth anniversaries of the December 12, 2013 grant date.

(2) Unvested option awards will vest in equal installments on the first through fourth anniversaries of the November 19, 2014 grant

date.(3) Unvested option awards will vest in equal installments on the first through fourth anniversaries of the November 17, 2015 grant

date.
(4) Unvested option awards will vest in equal installments on the first through fourth anniversaries of the November 10, 2016 grant date.

OPTION EXERCISES AND STOCK VESTED FOR FISCAL 2017

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 2017.

| | Option Awa | ards | Stock Awards | | | |
|----------------|--|------------------------------------|---|-----------------------------------|--|--|
| Name | Number of Shares Acquired on Exercise (#) | Value Realized on Exercise (\$) | Number of Shares Acquired on Vesting (#) | Value Realized on Vesting (\$) | | |
| Jong S. Whang | | _ | | | | |
| Fokko Pentinga | — | | — | _ | | |
| Robert T. Hass | _ | — | — | — | | |

Pension Benefits

As previously discussed under "Annual Compensation - Benefits," Mr. Pentinga, our President and Chief Executive Officer, is a participant in Pensioenfonds Metaal en Techniek, a multi-employer pension plan that covers our employees in the Netherlands. As of September 30, 2017, Mr. Pentinga had 23 years of credited service and the present value of accumulated benefit thereunder was €990,000. No payments were made thereunder in fiscal 2017. None of our other 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 Executive Chairman

On February 9, 2012, we entered into a Second Amended and Restated Employment Agreement with Jong S. Whang, our executive chairman, as amended on July 1, 2012, June 8, 2013, April 9, 2015 and November 17, 2015. 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 six 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

On November 17, 2015, the Company and Mr. Whang entered into a Fifth Amendment to Employment Agreement whereby Mr. Whang voluntarily reduced his base salary from \$400,000 per annum to \$200,000 per annum, effective January 1, 2016. The Fifth Amendment to Employment Agreement reflects that Mr. Whang's salary decrease is completely voluntary and may be restored by him in his sole discretion at any time upon giving written notice to the Company.

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 2017 bonus plan are described above in more detail in the section "Annual Cash Compensation" under the caption "Cash Bonuses."

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 may 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 IRC, 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.

Benefits

Mr. Whang will be entitled to receive such employee benefits as are provided to our other executive officers, 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, would be 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'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 receive she with the termination of the amount of incentive compensation he would earn for the fiscal year in which the terminated which the terminated on the stock held by him.

On November 17, 2015, the Board of Directors, following the recommendation of our Compensation and Options Committee of the Board of Directors, agreed to amend the change in control provisions of Mr. Whang's employment agreement to establish the base salary, for purposes of calculating severance payments would, in any event, be not less than \$400,000 per annum.

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, we 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 our 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 Mr. Whang at our expense.



Noncompetition

Mr. Whang agrees that during the term of his employment agreement he will not engage in certain activities in which he would be competing with us or our subsidiaries. He also agrees that for a period of two years after the end of the term of his employment agreement, he will 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.

Employment Agreement with Chief Executive Officer

On June 29, 2012, we entered into an employment agreement with Fokko Pentinga, our chief executive officer, as amended July 1, 2012, June 29, 2013, April 9, 2015, and November 10, 2016. Below is a summary of the terms and conditions of Mr. Pentinga's employment agreement.

Term

Mr. Pentinga's employment agreement provides for an employment period commencing on the date of the employment agreement and continuing for an indefinite period as required by Dutch statutory employment law.

Base Salary

On November 10, 2016, the Company and Mr. Pentinga entered into a Fifth Amendment to Employment Agreement whereby Mr. Pentinga voluntarily reduced his base salary from \$407,000 per annum to \$325,600 per annum, effective October 1, 2016. The Fifth Amendment to Employment Agreement reflects that Mr. Pentinga's salary decrease is completely voluntary and may be restored by him in his sole discretion at any time upon giving written notice to the Company.

Incentive Compensation

Mr. Pentinga 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. Pentinga than the bonus plan for fiscal 2012 that was adopted by our Compensation and Stock Option Committee on December 15, 2011. The terms of Mr. Pentinga's 2017 bonus plan are described above in more detail in the section "Annual Cash Compensation," under the caption "Cash Bonuses."

Stock Options

Pursuant to Mr. Pentinga's employment agreement, any currently outstanding options held by Mr. Pentinga will remain in full force and effect in accordance with our stock option plans and applicable stock option agreements. Mr. Pentinga may 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. Pentinga will be non-qualified stock options within the meaning of the IRC.

Benefits

Mr. Pentinga will be entitled to receive such employee benefits as are provided to other management-level employees in his country of domicile (i.e. the Netherlands), including disability and life insurance, and participation in pension and retirement plans, incentive compensation plans, stock option plans, disability and life insurance and other benefit plans. We will provide Mr. Pentinga with a leased automobile at a cost of not more than &29,500 per annum and such other benefits as we may deem appropriate from time to time.

Termination

Either we or Mr. Pentinga can terminate his employment agreement with prior written notice of termination given in accordance with Dutch statutory employment law, including observance of the Dutch statutory notice period, or by mutual agreement, or by the Company at any time for cause, as defined in the agreement. Mr. Pentinga's employment agreement can also be terminated by us due to the disability of Mr. Pentinga after meeting the requirements of Dutch statutory employment law.

Severance

If we terminate the employment of Mr. Pentinga against his will and without cause (including by giving notice of termination of his employment agreement as described above), or if Mr. Pentinga terminates his employment for good reason, Mr. Pentinga is entitled to receive salary, incentive compensation and vacation accrued through the date of termination, plus (i) an amount equal to Mr. Pentinga's base salary in effect on the date of termination for two years, which amounts to \$814,000 (ϵ 686,110); (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. Pentinga (see the "Outstanding Equity Awards at Fiscal Year-End" table above).

If Mr. Pentinga voluntarily terminates his employment other than for good reason, if we terminate Mr. Pentinga's employment for cause, or if Mr. Pentinga's employment is terminated due to his death or disability, Mr. Pentinga will be entitled to receive salary and accrued vacation through the date of termination. In addition, if we terminate Mr. Pentinga's employment due to disability as a result of his becoming incapacitated as defined in the Dutch Civil Code, Mr. Pentinga will be entitled to 70% of the maximum daily social wage for a maximum of 52 weeks, which would total approximately \$59,100. However, in the event Mr. Pentinga'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.

On November 10, 2016, the Board of Directors, following the recommendation of our Compensation and Options Committee of the Board of Directors, agreed to amend the change in control provisions of Mr. Pentinga's employment agreement to establish the base salary, for purposes of calculating severance payments would, in any event, be not less than \$407,000 per annum.

Noncompetition

Mr. Pentinga agrees that during the term of his employment agreement he will not engage in certain activities in which he would be competing with us or our subsidiaries. He also agrees that for a period of two years after the end of the term of his employment agreement, he will 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. Pentinga'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. Pentinga'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. Pentinga's employment agreement), or (ii) by Mr. Pentinga for good reason within one year following the occurrence of a change in control of our Company, then Mr. Pentinga 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. Pentinga 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.

Employment Agreement with Chief Financial Officer

On March 10, 2016, we entered into Key Terms of Employment with Robert T. Hass, our Interim Chief Financial Officer, which was superseded on November 10, 2016, when the Company and Mr. Hass entered into Terms of Employment for Robert T. Hass in connection with his appointment as Chief Financial Officer. On November 10, 2016, the Company and Mr. Hass also entered into a Change of Control and Severance Agreement. Below is a summary of the terms and conditions of Mr. Hass' employment agreement and change of control and severance agreement.

Term

Mr. Hass' employment agreement provides for an employment period commencing on the date of the employment agreement and continuing indefinitely until terminated by either party (see Termination section below for more details).

Base Salary

Pursuant to his Employment Agreement, Mr. Hass receives a base salary of \$225,000 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, at the discretion of our Compensation and Stock Option Committee.

Incentive Compensation

Mr. Hass 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 terms of Mr. Hass' 2017 bonus plan are described above in more detail in the section "Annual Cash Compensation," under the caption "Cash Bonuses."

Stock Options

Pursuant to Mr. Hass' employment agreement, any currently outstanding options held by Mr. Hass will remain in full force and effect in accordance with our stock option plans and applicable stock option agreements. Mr. Hass received stock options in November 2016 in connection with his commencement of employment. Mr. Hass may 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. Hass will be incentive stock options within the meaning of the IRC, 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.

Benefits

Mr. Hass will be entitled to receive such employee benefits as are provided to our other executive officers, 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. Hass with an annual automobile allowance of not less than \$7,000 (annual allowance is currently \$7,000) and such other benefits as we may deem appropriate from time to time.

Termination

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

Severance

If we terminate the employment of Mr. Hass against his will and without cause (including by giving notice of termination of his employment agreement as described above), or if Mr. Hass terminates his employment for good reason, Mr. Hass is entitled to receive salary, incentive compensation and vacation accrued through the date of termination, plus an amount equal to Mr. Hass' base salary in effect on the date of termination. If Mr. Hass voluntarily terminates his employment other than for good reason, if we terminate Mr. Hass' employment for cause, or if Mr. Hass' employment is terminated due to his death or disability, Mr. Hass will be entitled to receive salary and accrued vacation through the date of termination only.

Noncompetition

Mr. Hass agrees that during the term of his employment agreement he will not engage in certain activities in which he would be competing with us or our subsidiaries. He also agrees that for a period of two years after the end of the term of his employment agreement, he will 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. Hass' 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. Hass' employment agreement) of our Company or within one year following the occurrence of a "change in control" (as that term is defined in Mr. Hass' employment agreement), or (ii) by Mr. Hass for good reason within one year following the occurrence of a change in control of our Company, then Mr. Hass 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. Hass 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 one year in which the termination occurs, which amount shall be prorated for the year in which the termination occurs, and (iii) full vesting of all outstanding stock options and restricted stock he holds (see the "Outstanding Equity Awards at Fiscal Year-End" table above).

Other Compensatory Arrangements

On November 10, 2016, upon the recommendation of the Compensation and Stock Option Committee, the Board approved stock option grants in connection with Mr. Hass' appointment to Chief Financial Officer from Interim Chief Financial Officer. Mr. Hass received a grant of an option to purchase 10,000 shares of our common stock. The options granted have an exercise price of \$4.71 (the closing price of our common stock on November 9, 2016) and will vest on the first four (4) anniversaries of the grant date.



Compensation Policies and Practices as Related to Risk Management

The Compensation and Stock Option Committee does not believe our 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 our 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 our 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 our 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 our 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 January 12, 2012, a copy of which is available on the Company's website at 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 practices, 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. Moreover, the Audit Committee is directly responsible for the appointment, compensation, retention and oversight of the independent, registered public accounting firm.

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 the standards of the Public Company Accounting Oversight Board (United States).

The Audit Committee meets with the external auditors and management to review the Company's financial results before publication of the Company's quarterly earnings press releases and the filing of the Company's quarterly reports on Form 10-Q and annual report on Form 10-K. Additionally, management provides the Audit Committee with periodic updates throughout the year on the Company's compliance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002. The Committee also monitors the activities and performance of the external auditors, including audit scope, audit fees, auditor independence and performance of non-audit services. All services to be performed by the Company's independent registered public accounting firm are subject to pre-approval by the Audit Committee.

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, 2017, 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 Auditing Standard No. 1301 (Communications with Audit Committees), as adopted by the Public Company Accounting Oversight Board. 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, 2017 be included in the Company's Annual Report on Form 10-K for filing with the SEC.

RESPECTFULLY SUBMITTED,

Michael Garnreiter, Chairman Robert M. Averick Robert F. King Sukesh Mohan

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 our 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 fiscal years ended September 30, 2017 and 2016, all services rendered by our independent auditors were pre-approved by the Audit Committee pursuant to the 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, 2017 and 2016, 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.

Our independent auditors, Mayer Hoffman McCann P.C. ("Mayer Hoffman") leases substantially all of its personnel, who work under the control of Mayer Hoffman shareholders, from wholly-owned subsidiaries of CBIZ, Inc., in an alternative practice structure.

| | Yea Septem | Year Ended September 30, 2016 | | |
|------------------------|---------------|----------------------------------|----|---------|
| Audit Fees (1) | \$ | 494,000 | \$ | 494,000 |
| Audit-Related Fees (2) | | 43,000 | | _ |
| Tax Fees | | — | | _ |
| All Other Fees | | _ | | _ |
| Total Fees | \$ | 537,000 | \$ | 494,000 |

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

(2) Consists primarily of services related to filing of a prospectus supplement in connection with an offering of our Common Stock and the preparation of a comfort letter related thereto.



Code of Ethics

The Board of Directors has adopted a Code of Ethics for all employees, as recommended by the Nominating and Governance Committee. A copy of this Code of Ethics may be viewed on our website (www.amtechsystems.com), or obtained at no charge by written request to our Corporate Secretary.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We had no transactions during fiscal 2017, 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 written policy of the Board is for its Nominating and Governance Committee 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 and, 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 oApril 2, 2018, by (i) each director, director nominee and named executive officer of Amtech and (ii) all executive officers, directors and director nominees of Amtech as a group. The information included in the tables below was determined in accordance with Rule 13d-3 under the Exchange Act 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 Stock Beneficially Held (3) | _ | Percent of Common Stock Ownership (3) |
|---------------------------------------|--|------|--|
| Officers and Directors: | | | |
| Jong S. Whang | 234,733 | (4) | 1.6% |
| Fokko Pentinga | 260,417 | (5) | 1.7% |
| Robert T. Hass | 43,466 | (6) | * |
| Robert M. Averick | 2,412,000 | (7) | 16.2 % |
| Michael Garnreiter | 46,000 | (8) | * |
| Robert F. King | 38,601 | (9) | * |
| Sukesh Mohan | 18,000 | (10) | * |
| Director and Officer Total (9 people) | 3,068,551 | (11) | 20.6 % |

*Less than 1%.

- (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. Hass is our Executive Vice President - Chief Financial Officer, Treasurer and Secretary. Messrs. Averick, Garnreiter, King and Mohan are directors of Amtech.
- (3) Based on 14,896,004 shares of common stock outstanding as of April 2, 2018. The share amounts and percentages shown include shares of common stock actually owned as of April 2, 2018, 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 April 2, 2018, 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 such person, but are not deemed to be outstanding when computing the percentage of the securities owned by any other person.
- (4) Includes 181,667 shares issuable upon exercise of options exercisable within 60 days of April 2, 2018.
- (5) Includes 245,417 shares issuable upon exercise of options exercisable within 60 days of April 2, 2018.
- (6) Includes 41,884 shares issuable upon exercise of options exercisable within 60 days of April 2, 2018.
- (7) Mr. Averick is the Portfolio Manager at Kokino LLC, which is a family office that provides investment management services to various clients who own shares of the Company's common stock, including (i) Leslie J. Schreyer, as Trustee under Trust Agreement dated December 23, 1989 FBO the issue of Jonathan D. Sackler (the "Trust"); (ii) M3C Holdings LLC ("M3C"); and (iii) Piton Capital Partners LLC ("Piton"). As the Portfolio Manager at Kokino LLC, Mr. Averick shares the power to vote and dispose (or direct the disposition of 2,412,000 shares of common stock, which is the sum of the common stock beneficially owned by the following persons: (i) 1,386,312 shares of common stock beneficially owned by the Trust; (ii) 263,688 shares of common



The address for each person listed in this table is c/o Amtech Systems, Inc., 131 South Clark Drive, Tempe, Arizona 85281.

stock beneficially owned by M3C; (iii) 600,000 shares of common stock beneficially owned by Piton; and (iv) 150,000 shares of common stock beneficially owned by Mr. Averick jointly with his wife, along with 12,000 shares that Mr. Averick may acquire by exercising options that are immediately exercisable.

- (8) Includes 46,000 shares issuable upon exercise of options exercisable within 60 days of April 2, 2018.
- (9) Includes 30,401 shares issuable upon exercise of options exercisable within 60 days of April 2, 2018.
- (10) Includes 18,000 shares issuable upon exercise of options exercisable within 60 days of April 2, 2018.
- (11) Includes 590,703 shares issuable upon exercise of options exercisable within 60 days of April 2, 2018.

The following table sets forth certain information concerning the beneficial ownership of our common stock based on information received by the Company as oApril 2, 2018, by each person (other than directors or executive officers as disclosed in the chart above) known by us to be the beneficial owner of more than 5% of our common stock based on such filings.

| Name and Address | No. of Shares of Common Stock Beneficially Held (1) | | Percent of Common Stock Ownership (1) |
|---|---|-----|---|
| 5% Shareholders | | - | |
| Leslie J. Schreyer, as Trustee FBO the issue of Jonathan D. Sackler | 1,386,312 | (2) | 9.3% |
| Royce & Associates LLC | 762,430 | (3) | 5.1% |

- (1) Based on 14,896,004 shares of common stock outstanding as of April 2, 2018. The share amounts and percentages shown include shares of common stock actually owned as of April 2, 2018, 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 April 2, 2018, 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 such person, but are not deemed to be outstanding when computing the percentage of the securities owned by such person.
- (2) Information based on (i) the Schedule 13D/A filed with the SEC on December 18, 2017 on behalf of the Trust, M3C, Mr. Averick, Piton and OIH LLC and (ii) the Form 4 filed by Mr. Averick on March 21, 2017. Leslie J. Schreyer is Trustee under a Trust Agreement dated December 23, 1989 FBO the issue of Jonathan D. Sackler. Represents shares held in the Trust, for which Leslie J. Schreyer serves as sole Trustee and has voting power and dispositive power over such shares. Leslie J. Schreyer has no pecuniary interest in the shares held by the Trust. The Trust is a member of Piton, along with other clients of Kokino LLC. In the aggregate, clients of and other persons associated with Kokino LLC beneficially own 2,434,917 shares of common stock. The address for Leslie J. Schreyer is c/o Norton Rose Fulbright (US) LLP, 1301 Avenue of Americas, New York, NY 10019.
- (3) Information based on Schedule 13G/A filed with the SEC on January 3, 2018. The address for Royce & Associates, LLC is 745 Fifth Avenue, New York, NY 10151.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our 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 us 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 endedSeptember 30, 2017, or written representations from certain reporting persons, we believe that between October 1, 2016 and September 30, 2017, all Section 16(a) filing requirements applicable to its officers, directors and 10% shareholders were complied with, except that Mr. Hass filed a late Form 4 on November 18, 2016 reflecting his grant of options related to his appointment as Chief Financial Officer.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table sets forth certain information, as of September 30, 2017, concerning outstanding options and rights to purchase Common Stock granted to participants in all of our equity compensation plans and the number of shares of Common Stock remaining available for issuance under such equity compensation plans.

| Plan Category | Number of securities to be issued upon exercise of outstanding options, warrants and rights (a) | | Weighted-average exercise price of outstanding options, warrants and rights (b) | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c) | |
|--|---|----|---|---|--|
| Equity compensation plans approved by security holders (1) | 1,560,441 | \$ | 7.95 | 793,632 | |
| Equity compensation plans not approved by security holders | _ | | | _ | |
| Total | 1,560,441 | | | 793,632 | |

(1) Represents the 2007 Employee Stock Incentive Plan and the Non-Employee Director Stock Option Plan and any respective amendments to each thereto.

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, 2018, 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 2018 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 equity incentive compensation 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 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 and Stock Option 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 ADVISORY VOTE ON COMPENSATION OF THE NAMED EXECUTIVE OFFICERS

We are seeking an advisory vote from our shareholders to determine how frequently we should seek an advisory vote on compensation of our named executive officers, such as Proposal No. 3 included in this Proxy Statement. We are required to hold an advisory vote to determine the frequency of the advisory vote on the compensation of our named executive officers every sixth calendar year. By voting on this Proposal No. 4, shareholders may indicate whether they would prefer an advisory vote on our named executive officer compensation once every one, two or three years.

Our Board of Directors believes that an annual advisory vote on named executive officer compensation will provide our shareholders with direct and timely input on our executive compensation program and is the most appropriate alternative for the Company.

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

Our Annual Report for the fiscal year endedSeptember 30, 2017, is enclosed herewith.

Deadline for Shareholder Proposals for Action at our Next Annual Meeting

We anticipate holding our 2019 Annual Meeting of Shareholders on March 7, 2019. Any shareholder who wishes to present any proposal for shareholder action at the2019 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 Exchange Act, submit notice of such proposal to our Corporate Secretary, at our offices, not later than December 12, 2018, in order to be included in our 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 2019 Annual Meeting of Shareholders without any discussion of the proposal in our proxy statement, and the shareholder oses not notify us on or before February 25, 2019, as required by SEC Rule 14a-4(c)(1), of the intent to raise such proposal at the Annual Meeting of Shareholders, then proxies received by us for the 2019 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

We do not have formal procedures for shareholder communications with the Board of Directors. However, any matter intended for the Board or any Board Committee should be directed to our Corporate Secretary 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 for forwarding to the Board 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 SEC 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 our 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 our Corporate Secretary at Amtech Systems, Inc., 131 South Clark Drive, Tempe, Arizona 85281 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 us at (480) 967-5146.

By Order of the Board of Directors:

faces

Robert T. Hass, Secretary

Tempe, Arizona April 5, 2018

Electronic Voting Instructions Available 24 hours a day, 7 days a week!

Instead of mailing your proxy, you may choose one of the voting methods outlined below to vote your proxy.

VALIDATION DETAILS ARE LOCATED BELOW IN THE TITLE BAR. Proxies submitted by the Internet or telephone must be received by 1:00 a.m., Eastern Standard Time, on May 11, 2018.

Vote by Internet

- · Go to www.investorvote.com/ASYS
- Or scan the QR code with your smartphone
- · Follow the steps outlined on the secure website

Vote by telephone

• Call toll free 1-800-652-VOTE (8683) within the USA, US territories & Canada on a touch tone telephone

Follow the instructions provided by the recorded message

A. Proposals-The Board of Directors recommends a vote FOR all the nominees listed, FOR Proposals 2 through 3 and ONE YEAR for Proposal 4.

1. ELECTION OF DIRECTORS:

| | For | Withhold | |
|-----------------------|-----|----------|-------|
| 1. Jong S. Whang | | | votes |
| 2. Fokko Pentinga | | | votes |
| 3. Robert Averick | | | votes |
| 4. Michael Garnreiter | | | votes |
| 5. Robert F. King | | | votes |
| 6. Sukesh Mohan | | | 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 2018

| For | Against | Abstain |
|-----|---------|---------|
| | | |

3. ADVISORY VOTE TO APPROVE NAMED EXECUTIVE OFFICER COMPENSATION

| For | Against | Abstain |
|-----|---------|---------|
| | | |

4. ADVISORY VOTE ON THE FREQUENCY OF THE ADVISORY VOTE ON COMPENSATION OF THE NAMED EXECUTIVE OFFICERS

| 3 Years | 2 Years | 1 Year | Abstain |
|---------|---------|--------|---------|
| | | | |

B. Authorized Signatures - This section must be completed for your vote to be counted - Date and Sign below

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. 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.

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

| F / / 1 | r 1 | r 1 | |
|---------|-----|-----|--|
| | | | |
| | | | |

IF VOTING BY MAIL, YOU MUST COMPLETE SECTIONS A - C ON BOTH SIDES OF THIS CARD

PROXY - AMTECH SYSTEMS, INC.

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS OF AMTECH SYSTEMS, INC. FOR THE 2018 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 April 5, 2018, and hereby appoints Jong S. Whang and Robert T. Hass, and each of them, proxies and attorneys-in-fact, with full power of substitution, on behalf and in the name of the undersigned, to represent the undersigned at the Annual Meeting of Shareholders of AMTECH SYSTEMS, INC. to be held at The Tempe Mission Palms Hotel, 60 East 5th Street, Tempe, Arizona, USA, on Friday, May 11, 2018, at 8:00 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.

C. Non-Voting Items

Change of Address - Please print your new address below. Comments - Please print your comments below.

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IF VOTING BY MAIL, YOU MUST COMPLETE SECTIONS A - C ON BOTH SIDES OF THIS CARD

B-2