

AMERICAN SCIENCE & ENGINEERING INC
Form DEF 14A
July 29, 2008

QuickLinks -- Click here to rapidly navigate through this document

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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of
the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant

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 Pursuant to §240.14a-12

AMERICAN SCIENCE AND ENGINEERING, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:
 - (2) Aggregate number of securities to which transaction applies:
 - (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
 - (4) Proposed maximum aggregate value of transaction:
 - (5) Total fee paid:

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

- o Fee paid previously with preliminary materials.
 - o Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
 - (1) Amount Previously Paid:
 - (2) Form, Schedule or Registration Statement No.:
 - (3) Filing Party:
 - (4) Date Filed:
-

AMERICAN SCIENCE AND ENGINEERING, INC.
829 Middlesex Turnpike
Billerica, MA 01821

July 29, 2008

To our stockholders:

You are cordially invited to attend the Annual Meeting of Stockholders of American Science and Engineering, Inc. to be held Thursday, September 11, 2008 at 8:30 a.m. at the Doubletree Hotel Boston-Bedford Glen, 44 Middlesex Turnpike, Bedford, Massachusetts. The Board of Directors and management look forward to personally greeting those stockholders who attend.

The accompanying Proxy Statement asks for your vote to re-elect the nominated directors to another one-year term. Our Board of Directors is elected each year by the stockholders to a one-year term.

The Proxy Statement also asks for your vote in favor of increasing the number of shares authorized to be issued under the 2005 Equity and Incentive Plan.

The Board of Directors would also like stockholders to ratify its selection of Vitale, Caturano & Company, Ltd., registered public accountants, as auditors for the fiscal year ending March 31, 2009.

The Board of Directors of your Company recommends that you vote **FOR** these proposals. If you have any questions, please call me, our Chairman, Denis Brown, or Ken Galaznik, our Senior Vice President, Chief Financial Officer and Treasurer, at 800-225-1608.

Thank you for your consideration and I look forward to seeing you at our Annual Meeting on September 11, 2008.

Very truly yours,

Anthony R. Fabiano
President and CEO

AMERICAN SCIENCE AND ENGINEERING, INC.

829 Middlesex Turnpike
Billerica, Massachusetts 01821

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD SEPTEMBER 11, 2008**

The Annual Meeting of Stockholders of American Science and Engineering, Inc. (the "Company") will be held Thursday, September 11, 2008, at 8:30 a.m., at the Doubletree Hotel Boston-Bedford Glen, 44 Middlesex Turnpike, Bedford, Massachusetts, for the following purposes:

- (1) To elect the persons named in the accompanying Proxy Statement to serve as Directors until the next Annual Meeting and until their successors are elected and qualified;
- (2) To increase the maximum number of shares available to be issued under the 2005 Equity and Incentive Plan by 250,000 shares;
- (3) To ratify the selection of Vitale, Caturano and Company, Ltd., independent registered public accountants, as auditors for the fiscal year ending March 31, 2009; and
- (4) To consider and act upon any other business that may properly come before the meeting and any adjournment or adjournments thereof.

Our Proxy Statement containing information for stockholders accompanies this Notice and a copy of our Annual Report for the fiscal year ended March 31, 2008 is also enclosed.

The Board of Directors has fixed the close of business, July 28, 2008, as the record date for the determination of stockholders entitled to notice of, and to vote at, the meeting.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to Be Held on September 11, 2008: the Proxy Statement and Annual Report to Stockholders are available in the Investor Information page of the Company's website at www.as-e.com.

By Order of the Board of Directors

William F. Grieco
*Senior Vice President, General Counsel and
Clerk*

July 29, 2008

YOUR VOTE IS IMPORTANT. WHETHER OR NOT YOU INTEND TO ATTEND THE MEETING IN PERSON, PLEASE DATE AND SIGN THE ENCLOSED PROXY AND RETURN IT PROMPTLY IN THE ACCOMPANYING ENVELOPE. IF YOU ATTEND THE MEETING, YOU MAY REVOKE THE PROXY AND VOTE YOUR SHARES IN PERSON.

AMERICAN SCIENCE AND ENGINEERING, INC.

829 Middlesex Turnpike
Billerica, Massachusetts 01821

PROXY STATEMENT

The enclosed Proxy is solicited by the Board of Directors of American Science and Engineering, Inc. (the "Company") for use at the Annual Meeting of Stockholders to be held on Thursday, September 11, 2008, at 8:30 a.m. at the Doubletree Hotel Boston-Bedford Glen, 44 Middlesex Turnpike, Bedford, Massachusetts, and at any adjournment of the meeting (the "Meeting"). The matters to be considered and acted upon at the Meeting are described in the attached notice of the Meeting and in this Proxy Statement.

Stockholders of record at the close of business on July 28, 2008 are entitled to notice of and to vote at the Meeting. Each share of Common Stock of the Company outstanding on the record date is entitled to one vote. As of the close of business on July 6, 2008, 8,782,211 shares of Common Stock of the Company were outstanding.

We anticipate that this Proxy Statement and the accompanying Proxy will first be mailed to stockholders on or about August 11, 2008.

The votes of the stockholders present in person or represented by proxy at the Meeting will be tabulated by an inspector of elections appointed by the Company. The representation in person or by proxy of at least a majority of the outstanding shares of Common Stock of the Company is necessary to provide a quorum at the Meeting. Directors are elected by a plurality of the affirmative votes cast. Abstentions and broker "non-votes" are each counted as present in determining whether the quorum requirement is satisfied, but are not counted as votes properly cast with respect to the matter. Accordingly, such abstentions and broker "non-votes" will have no effect on the outcome of voting on the election of directors or the ratification of the selection of independent registered public accountants. Abstentions and "non-votes" have the effect of votes against proposals presented to the stockholders other than the election of directors. A "non-vote" occurs when a broker or other nominee holding shares for a beneficial owner does not vote on a proposal because the broker or other nominee does not have discretionary voting power and has not received instructions from the beneficial owner.

All proxies solicited by the Board of Directors of the Company that are properly executed and returned, but which are not expressly voted, will be voted at the Meeting in accordance with the recommendation of the Board of Directors of the Company, unless such proxies are revoked prior to the Meeting. A proxy may be revoked by delivering a written notice of revocation to the principal office of the Company or may be revoked in person at the Meeting at any time prior to the voting thereof. Attendance at the Meeting will not, by itself, revoke a proxy.

The solicitation of proxies in the enclosed form is made on behalf of the Board of Directors. The entire cost of soliciting these proxies, including the costs of preparing, printing and mailing to stockholders this Proxy Statement and accompanying materials, will be borne by the Company. In addition to use of the mails, proxies may be solicited personally or by telephone or otherwise by our officers, directors and employees, who will receive no additional compensation for such activities. Arrangements will also be made with brokerage houses and other custodians, nominees and fiduciaries to forward solicitation materials to the beneficial owners of shares held of record by such institutions and persons. Such parties will be reimbursed for their reasonable expenses incurred in connection with these activities.

PROPOSAL NO. 1

ELECTION OF DIRECTORS

On May 30, 2008, General William E. Odom, the Chairman of the Company's Board of Directors, passed away. General Odom served on the Company's Board since 1996 and was Chairman since 1998. He made significant contributions to the Board during his tenure and will be greatly missed. Following his passing, Mr. Denis R Brown, a Board member since April 2004, was appointed Chairman of the Board.

The Board of Directors currently consists of seven members, whose terms expire at the Meeting. The Board of Directors is recommending that the size of the Board be set at seven members and that the seven incumbent directors identified below be re-elected.

We have included below the principal occupation and other information about the nominees. A plurality of the votes cast by stockholders present in person or represented by proxy at the Meeting and entitled to vote thereon is required to elect each of the nominated directors. Each director will serve for one year and until his successor is elected and qualified. If any nominee at the time of the election is unable or unwilling to serve or is otherwise unavailable for election, the Board of Directors may designate another nominee and the persons named as proxies will vote all proxies for such nominee. The Board of Directors has no reason to believe that any nominee is unwilling or unable to serve. There are no arrangements between any nominee and any other person relating to such nominee's nomination.

The Board of Directors recommends a vote FOR each of the below mentioned nominees as directors. Proxies solicited by the Board of Directors of the Company, if properly signed and returned and containing no instructions to the contrary, will be voted FOR electing the nominees listed below as directors of the Company.

Nominees

The names of, and certain information with respect to, the persons nominated by the Board of Directors for election as directors are as follows:

Name	Age	Positions and Offices of Company Held	Date Assumed Each Position
Denis R. Brown	69	Chairman Director	June 2008 April 2004
Anthony R. Fabiano	55	Director President and CEO	September 2003 September 2003
Roger P. Heinisch	70	Director	August 1999
Hamilton W. Helmer	61	Director	February 1993
Ernest J. Moniz	63	Director	October 2002
Mark Thompson	51	Director	November 2005
Carl W. Vogt	72	Director	June 1997

Mr. Denis R. Brown has served on the Company's Board of Directors since April 2004 and was appointed Chairman of the Board in June 2008. Mr. Brown is a seasoned CEO with significant experience in defense technology, commercial manufacturing, and service businesses. Since 1999, Mr. Brown has been a private investor and has advised a start-up software company serving the idea management market. As Chairman and CEO of Pinkerton, Inc. from 1994 to 1999, he successfully negotiated the merger with Securitas A.B. to form the largest security company in the world and significantly improved performance and shareholder value. From 1992 to 1996, Mr. Brown served as Chairman and principal owner of Engineering Technical Services until he successfully negotiated the

Company's sale. He also served in the capacity of Chairman and CEO at Concurrent Corporation (1990-1993), and as President and CEO (1985 to 1990) at Penn Central Industries, Inc. Mr. Brown holds a Bachelor's degree in Slavic Languages from the University of California and a Bachelor's degree in Communications Engineering from the U.S. Naval Postgraduate School, Monterey, California. He served as a U.S. Navy Officer from 1962 to 1969.

Mr. Anthony Fabiano was appointed the Company's President and CEO in September 2003. He brought with him more than 20 years of senior management experience in the manufacture and sale of high technology products for both government and commercial applications. Prior to joining the Company, Mr. Fabiano served for five years as President and Chief Operating Officer at Minneapolis-based Despatch Industries, a leading designer and manufacturer of thermal processing equipment. Prior to Despatch, Mr. Fabiano spent three years as Vice President of Defense Systems Operations at Alliant Techsystems, a Fortune 500 aerospace and defense company with leading positions in propulsion, munitions and composite structure materials. Before advancing to Vice President, he was President of Alliant's Ferrulmatic Operations division, formerly Ferrulmatic Inc., an engineering and manufacturing company specializing in precision products for the munitions, industrial power tool, fluid control and medical industries. Prior to acquisition by Alliant, Mr. Fabiano worked at Ferrulmatic for more than a decade, where he served as Vice President and General Manager until he was promoted to President and CEO in 1985. Mr. Fabiano holds a Bachelor of Arts degree from Rutgers University.

Dr. Roger P. Heinisch served as Interim President and CEO of the Company from May 2003 to September 2003, and has served on the Company's Board of Directors since August 1999. From 1968 to 1991 Dr. Heinisch held key executive positions at the Honeywell Corporation. In 1991 when Alliant Techsystems was spun off from Honeywell, Dr. Heinisch assumed the position of Vice President, Engineering with the new company. From 1995 until April of 1997 he also assumed responsibility for Information Systems and Technology. Dr. Heinisch is a former member of the Army Science Board and has been a member of various Department of Defense review panels and technical boards. Dr. Heinisch holds a B.S. and an M.S. in Nuclear Engineering from Marquette University and a Ph.D. in Engineering Science from Purdue University. In addition, Dr. Heinisch has been recognized as an Outstanding Engineering Alumnus of Marquette and a Distinguished Engineering Alumnus of Purdue.

Dr. Hamilton Helmer has been the Managing Director of Deep Strategy, a strategy consulting firm since 2002. Prior to that, Dr. Helmer served as Managing Director of Helmer & Associates (Deep Strategy's predecessor firm) from 1982 to 2002. Deep Strategy and Helmer & Associates have served major clients such as Adobe Systems, Hewlett-Packard, John Hancock Mutual Life, Raychem, Pinkerton, Magnavox and Mentor Graphics. Previously, Dr. Helmer was employed at Bain & Company. He holds a Ph.D. in Economics from Yale and is a Phi Beta Kappa graduate of Williams College.

Dr. Ernest Moniz is the Cecil and Ida Green Professor of Physics and Engineering Systems at the Massachusetts Institute of Technology where he has served on the faculty since 1973. At MIT, he served as Head of the Department of Physics and Director of the Bates Linear Accelerator Center, and is currently Director of the Laboratory for Energy and the Environment and Director of the MIT Energy Initiative. From October 1997 to January 2001, he was Undersecretary of the Department of Energy, responsible for the Offices of Science; Fossil Energy; Energy Efficiency and Renewable Energy; Nuclear Energy, Science and Technology; Environmental Management; and Civilian Radioactive Waste Management. He was the Department's lead negotiator for cooperative programs with Russia dealing with nuclear weapons material control and disposition. Dr. Moniz also served from 1995 to 1997 as Associate Director for Science in the Office of Science and Technology Policy in the Executive Office of the President. He previously served as a Director of the Company from 1990 to 1995. Dr. Moniz holds a Bachelor of Science degree in physics from Boston College, a doctorate in theoretical physics from Stanford University, and honorary doctorates from the University of Athens, the University of Erlangen-Nuremburg, and Michigan State University. Dr. Moniz is a fellow of the American Association for the Advancement of Science, the Humboldt Foundation, and the American Physical Society and is

also a member of the Council on Foreign Relations. He serves on the Boards of the Jefferson Science Associates, LLC, Electric Power Research Institute and Nexant, Inc. He serves on corporate technology advisory councils at BP plc and Babcock and Wilcox.

Dr. Mark Thompson has been a member of the Board since November 2005. Dr. Thompson has been President and Chief Executive Officer of Fairchild Semiconductor since May 2005, and was previously Executive Vice President, Manufacturing and Technology Group, from December 2004 until his promotion to President and CEO. From 2001 to 2004, Dr. Thompson had been the Chief Executive Officer of Big Bear Networks, Inc., a designer and manufacturer of optoelectronic network solutions. He was previously Vice President and General Manager of Tyco Electronics' Power Components Division and, prior to its acquisition by Tyco, was Vice President of Raychem Electronics' OEM Group. He serves on the Boards of Fairchild Semiconductor and Cooper Industries. He holds a bachelor's degree in Chemistry from State University of New York and a Ph.D. in Inorganic Chemistry from the University of North Carolina.

Mr. Carl W. Vogt has been a Director of the Company since June 1997. In 2004, Mr. Vogt retired as counsel from Fulbright & Jaworski L.L.P., a nationally and internationally based law firm (where he was formerly a senior partner). He is currently a Director of the Scudder Investments Mutual Funds and Yellow Roadway Corporation. He was formerly a Director of the ISI Managed Funds from 1999 to 2004, a Director of the National Passenger Railroad Corporation (AMTRAK) from 1990 until 1992, a Director of Waste Management, Inc., from 2001 to 2005, and Chair of the U.S. National Transportation Safety Board from 1992 until 1994. He is a Trustee of Williams College, where he served as President (interim) from 1999 until 2000, Chair of the Flight Safety Foundation and a member of the American Council of Germany. Mr. Vogt is a Fellow of the Royal Aeronautical Society, a Fellow of the American Bar Foundation and an Industrial Fellow, Linacre College, Oxford University, England. Mr. Vogt holds a B.A. degree from Williams College and a LLB degree from University of Texas Law School.

Executive Officers (who are not also Directors)

Name	Age	Positions and Offices of Company Held	Date Assumed Each Position
Kenneth A. Breur	53	Senior Vice President, Product Management and Engineering	March 2008
		Vice President, Operations	December 2003
Joseph Callerame	58	Senior Vice President, Science and Technology	March 2008
		Vice President, Science and Technology	June 1998
Kenneth J. Galaznik	56	Senior Vice President, Chief Financial Officer and Treasurer	March 2008
		Chief Financial Officer and Treasurer	February 2005
Paul H. Grazewski	52	Senior Vice President, Strategic Planning	March 2008
		Vice President, Product Management	January 2004
William F. Grieco	54	Senior Vice President, General Counsel and Clerk	March 2008
		Vice President, General Counsel and Clerk	January 2006
George M. Peterman	60	Senior Vice President, Human Resources	March 2008
		Vice President, Human Resources	February 2004
Robert G. Postle	54	Senior Vice President, Worldwide Marketing and Sales	March 2008
		Vice President, Worldwide Marketing and Sales	March 2004

Kenneth A. Breur was appointed Senior Vice President, Product Management and Engineering in March 2008 and was previously Vice President of Operations at the Company. Mr. Breur has more

than twenty-five years of experience in manufacturing technology with special focus on increasing operational effectiveness for product optimization and cost reduction. Prior to joining the Company in December 2003, Mr. Breur spent six years in management positions at Minneapolis-based Despatch Industries, a leading designer and manufacturer of thermal processing equipment, where as Vice President, he managed worldwide sales and marketing, product management and engineering. Overseeing facilities in Minnesota, Michigan and California, Mr. Breur was responsible for profit & loss of all products, as well as product development initiatives. Before advancing to Vice President, Mr. Breur was Director of Product Management and Engineering. Mr. Breur holds a bachelor's degree in manufacturing engineering and a certificate in mechanical engineering from the New Jersey Institute of Technology in Newark, New Jersey.

Dr. Joseph Callerame is Senior Vice President of Science and Technology at the Company. Prior to joining the Company in 1998, Dr. Callerame served at Raytheon Electronic Systems as Manager of Engineering and Technology Development. From 1993 to 1994, he served as Deputy General Manager of the Research Division of Raytheon, and from 1989 to 1992 he was Assistant General Manager of this Division. Prior to serving as Assistant General Manager, Dr. Callerame held the position of Manager, Infrared Detector Laboratory and the Stable Sources Laboratory. From 1977 to 1980, Dr. Callerame was a senior scientist in Medical Ultrasound at Raytheon's Research Division. Dr. Callerame earned his Ph.D. and master's degree in physics from Harvard University, and holds a bachelor's degree in chemical physics from Columbia University. Dr. Callerame also served as a Postdoctoral Fellow in physics at MIT from 1975 to 1977.

Kenneth J. Galaznik is Senior Vice President, Chief Financial Officer and Treasurer of the Company. Prior to appointment to his current position in February 2005, Mr. Galaznik served as Acting Chief Financial Officer from June 2004, as Vice President of Finance from July 2003, and as a financial management consultant from August 2002. Previously, he was Vice President of Finance at Spectro Analytical Instruments, Inc. and has thirty years of experience in accounting and finance positions in manufacturing and real estate development entities. Mr. Galaznik holds a bachelor of business administration degree in accounting from the University of Houston. Mr. Galaznik serves on the Board of Directors of Bridgeline Software, Inc.

Paul Grazewski was appointed Senior Vice President of Strategic Planning in March of 2008 and was previously Vice President of Product Management at the Company. In his current role, Mr. Grazewski has responsibility for developing and implementing strategic plans at all levels of the organization and for managing strategic relationships for the Company. He joined the Company in 2002 as Vice President, Program Management. From 2000 to 2001, Mr. Grazewski served as Director of Programs for Alcatel, a communications solutions provider, where he led the development of a high-speed Internet router. From 1996 to 1999, Mr. Grazewski served as Vice President, Programs and Business Development at General Dynamics Armament Systems, where he delivered integrated defense systems to a worldwide client base. From 1993 to 1996, Mr. Grazewski was Director of Programs at Lockheed Martin, a leading systems integrator and information technology company. Mr. Grazewski holds a bachelor's degree in industrial engineering and operations research from the University of Massachusetts Amherst, and an MBA from Xavier University in Cincinnati, Ohio.

William F. Grieco is Senior Vice President, and General Counsel of the Company. Prior to joining AS&E, Mr. Grieco served as Managing Director of Arcadia Strategies, LLC, a legal and business consulting organization servicing science and technology companies, since 1999. From 2001 to 2002, he also served as Senior Vice President and General Counsel of IDX Systems Corporation, an information technology company. From 1995 to 1999 he was Senior Vice President and General Counsel of Fresenius Medical Care NA, the world's largest integrated provider of dialysis equipment and services. Prior to that, Mr. Grieco was a Senior Partner at Choate, Hall & Stewart, a major Boston law firm. Mr. Grieco is a member of the Board of Directors of PHC, Inc., a behavioral health company.

Mr. Grieco received a bachelor's degree from Boston College, a graduate degree in management from Harvard University, and a JD from Boston College Law School.

George M. Peterman is Senior Vice President of Human Resources at the Company and is responsible for leading the development of the Company's Human Resources operations and programs. With over thirty years of experience in organizational development, compensation program design and strategic recruiting, Mr. Peterman implements effective programs to build and support a world class workforce. Prior to joining the Company, Mr. Peterman spent eleven years in executive roles at King & Bishop, a human resource professional service provider. As Vice President and Managing Director, Mr. Peterman established King & Bishop's first organizational and HR outsourcing practice area. Prior to King and Bishop Mr. Peterman provided HR Services through his own consulting practice. Prior to his consulting career Mr. Peterman held corporate Human Resources positions at Data General Corporation, Digital Equipment Corporation and Honeywell Information Systems. Mr. Peterman holds a Bachelor of Arts degree from Princeton University.

Robert G. Postle is Senior Vice President of Worldwide Marketing and Sales at the Company. Prior to joining the Company in March 2004, Mr. Postle was Vice President of Sales and Marketing at SolVision, Inc., a leader in automated visual inspection solutions for the microelectronics industry, from 2003 to 2004. From 2002 to 2003, Mr. Postle was the Vice President of Sales at Sagitta, Inc., a semiconductor/telecommunications equipment manufacturer. Prior to that, Mr. Postle served for seven years as Vice President of Sales, Marketing and International for PRI Automation, a semiconductor capital equipment company. Mr. Postle holds a bachelor's degree in business administration from the State University of New York in Brockport, New York.

CORPORATE GOVERNANCE

Meetings of the Board of Directors

During the fiscal year ended March 31, 2008, the Board of Directors of the Company met five times. All of the directors attended 75% or more of the aggregate of the total number of meetings of the Board and of the meetings of committees of the Board on which they served. Our Board of Directors has determined that each of Mr. Denis Brown, Dr. Roger P. Heinisch, Dr. Hamilton Helmer, Dr. Ernest Moniz, Dr. Mark Thompson, and Mr. Carl Vogt is an independent director as defined in the NASDAQ listing standards. The Board of Directors has three standing Committees: the Audit Committee, the Compensation Committee, and the Nominating and Corporate Governance Committee. The Company also has one informal committee, the Science and Technology Advisory Committee.

Resolutions adopted by the Board of Directors provide that directors are expected to attend the Annual Meeting of Stockholders. All of the directors attended the 2007 Annual Meeting of Stockholders.

Audit Committee

The Audit Committee, established in accordance with the rules and regulations of the SEC, consists of Dr. Hamilton W. Helmer, Dr. Roger P. Heinisch and Mr. Denis R. Brown. In the opinion of the Board of Directors, and as "independent" is defined in Section 4200(a)(15) of the NASDAQ Marketplace Rules, all members of the Audit Committee are independent of management and free of any relationship that would interfere with the exercise of independent judgment as members of the Audit Committee. Our Board of Directors has determined that Dr. Helmer and Mr. Brown both qualify as an "audit committee financial expert" as such term is defined under the rules and regulations of the SEC. The Board believes that the members of the Audit Committee have sufficient knowledge and experience with financial and accounting matters to perform their duties as members of the Audit Committee. This Committee, which met five times during fiscal 2008, is primarily responsible for reviewing the activities of the Company's independent auditors, reviewing and evaluating

recommendations of the auditors, recommending areas of review to the Company's management, and reviewing and evaluating the Company's financial statements, accounting policies, reporting practices and internal controls. Our Board of Directors has adopted a written charter for the Audit Committee which is posted on our website at www.as-e.com in the Corporate Governance section of the Investor Information page and attached as Appendix B to this proxy filing.

Compensation Committee

The Compensation Committee consists of Mr. Carl W. Vogt, Dr. Roger P. Heinisch, and Mr. Denis Brown. This Committee, which met two times during fiscal 2008, is responsible for making recommendations to the Company's Board of Directors concerning the levels and types of compensation and benefits to be paid and granted to the Company's Chief Executive Officer and other executive employees of the Company and for the administration of the Company's equity incentive plans. The Company's Chief Executive Officer did not attend any meeting of the Compensation Committee during which the Compensation Committee prepared its recommendation regarding the level and type of compensation and benefits for the Chief Executive Officer. In the opinion of our Board of Directors, all members of the Compensation Committee are "independent" as defined in Section 4200(a)(15) of the NASDAQ Marketplace Rules. Our Board of Directors has adopted a written charter for the Compensation Committee which is posted on our website at www.as-e.com in the Corporate Governance section of the Investor Information page.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee consists of Mr. Carl W. Vogt and Dr. Roger P. Heinisch. General William E. Odom served as chairman of the Nominating and Corporate Governance Committee during fiscal 2008. The Committee met two times during fiscal 2008. The Committee is charged with the responsibility of identifying appropriate candidates for nomination to the Board. In the opinion of our Board of Directors, all members of the Nominating and Corporate Governance Committee are "independent" as defined in Section 4200(a)(15) of the NASDAQ Marketplace Rules. The Company's By-Laws currently set forth the procedures for the nomination of candidates for director by stockholders. Our Board of Directors has adopted a written charter for the Nominating and Corporate Governance Committee which is posted on our website at www.as-e.com in the Corporate Governance section of the Investor Information page.

Nominating Process

The process followed by the Nominating and Corporate Governance Committee to identify and evaluate director candidates includes requests to Board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the Committee and the Board.

In considering whether to recommend any particular candidate for inclusion in the Board's slate of recommended director nominees, the Nominating and Corporate Governance Committee will apply criteria that include the candidate's integrity, business acumen, knowledge of the Company's business and industry, experience, diligence, conflicts of interest and the ability to act in the interests of all stockholders. The Committee does not assign specific weights to particular criterion and no particular criterion is a prerequisite for each prospective nominee. The Company believes that the backgrounds and qualifications of its directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the Board to fulfill its responsibilities.

Stockholders may recommend individuals to the Nominating and Corporate Governance Committee for consideration as potential director candidates by following the procedures outlined in

the By-Laws of the Company. However, nominations by stockholders shall be made only after giving timely notice in writing to the Clerk of the Company. In order to be timely given, a stockholder's notice shall be delivered to or mailed and received at the principal executive offices of the Company (a) not less than 95 and not more than 125 days prior to the anniversary date of the immediately preceding Annual Meeting of Stockholders of the Company or (b) if the Annual Meeting is called for a date not within 30 days before or after such anniversary date, not later than the close of business on the 10th day following the day on which notice of the date of the meeting was mailed or public disclosure of the date of the meeting was made, whichever first occurs. Such stockholder's notice to the Clerk shall set forth (a) as to each person whom the stockholder proposes to nominate for election or reelection as a director, (i) the name, age, business address and residence address of the person, (ii) the principal occupation or employment of the person, (iii) the class and number of shares of capital stock of the Company, if any, which are beneficially owned by the person, (iv) any other information regarding the nominee as would be required to be included in a proxy statement or other filings required to be filed pursuant to the proxy rules, and (v) the consent of each nominee to serve as a director of the Company if so elected; and (b) as to the stockholder giving the notice, (i) the name and record address of the stockholder, (ii) the class and number of shares of capital stock of the Company which are beneficially owned by the stockholder as of the record date for the meeting (if such date shall then have been made publicly available) and as of the date of such notice, (iii) a representation that the stockholder intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice, (iv) a representation that the stockholder (and any party on whose behalf such stockholder is acting) is qualified at the time of giving such notice to have such individual serve as the nominee of such stockholder (and any party on whose behalf such stockholder is acting) if such individual is elected, accompanied by copies of any notifications or filings with, or orders or other actions by, and governmental authority which are required in order for such stockholder (and any party on whose behalf such stockholder is acting) to be so qualified, (v) a description of all arrangements or understandings between such stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by such stockholder, and (vi) such other information regarding such stockholder as would be required to be included in a proxy statement or other filings required to be filed pursuant to the proxy rules. The Company may require any proposed nominee to furnish such other information as may reasonably be required by the Company to determine the eligibility of such proposed nominee to serve as a director.

The Chairman of the Board or other presiding officer of the meeting may, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the foregoing procedures, and if such officer should so determine, such officer shall so declare to the meeting and the defective nomination shall be disregarded. If the Board determines to nominate a stockholder-recommended candidate and recommends his or her election, then his or her name will be included in the Company's proxy card for the next Annual Meeting.

Communication with Directors

The Board of Directors, including a majority of the independent directors, has approved procedures for stockholders to communicate directly with our Board of Directors on a confidential basis. Pursuant to these established procedures, the Board will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate. Specifically, the Chairman of the Board (if an independent director), or otherwise the Chairman of the Nominating and Corporate Governance Committee, with the assistance of the Company's General Counsel, is primarily responsible for monitoring communications from stockholders and for providing copies or summaries to the other directors as he considers appropriate. Under the procedures approved by the Board of Directors, including a majority of the independent directors, communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that

the Chairman of the Nominating and Corporate Governance Committee considers to be important for the directors to know. In general, communications relating to corporate governance and long term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which the Company tends to receive repetitive or duplicative communications. Stockholders who wish to send communications on any topic to the Board should address such communications to Board of Directors c/o American Science and Engineering, Inc., 829 Middlesex Turnpike, Billerica, Massachusetts 01821.

Compensation of Directors

Directors who are also employees of the Company do not receive additional compensation as directors. On September 13, 2007, the Board of Directors approved the 2007 Non-employee Board of Directors Compensation Plan. This plan provides for all non-employee Board members to receive compensation in the form of cash, restricted stock and non-qualified stock option awards for their Board and Committee memberships. The breakdown of this compensation is as follows:

	Board of Directors	Audit Committee	Compensation Committee	Other Committees
Annual cash retainer	\$30,000	\$ 6,000	\$ 4,000	\$ 2,000
Additional cash retainer Chairman	\$15,000	\$ 4,000	\$ 1,000	\$ 1,000
Restricted stock awards	\$30,000			
Additional stock awards Chairman	\$15,000			
Non-qualified stock options	7,000			
Additional option awards Chairman	3,000			
	options			

The following table reflects compensation earned by non-employee Directors in fiscal year 2008.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)(1)	Option Awards (\$)(2)	Total (\$)
Denis R. Brown	28,000	30,000	153,000	211,000
Roger P. Heinisch	28,000	30,000	153,000	211,000
Hamilton W. Helmer	27,000	30,000	153,000	210,000
Ernest J. Moniz	21,000	30,000	153,000	204,000
William E. Odom	29,000	45,000	218,000	292,000
Mark Thompson	20,000	30,000	153,000	203,000
Carl W. Vogt	23,000	30,000	153,000	206,000

- (1) The Stock Awards column represents compensation expense recognized for financial reporting purposes during fiscal year 2008 in accordance with Statement of Financial Accounting Standards No. 123(R) related to the awards of restricted shares granted in fiscal 2007 and 2008. The assumptions used to calculate the value of stock awards are set forth under Note 6 of the Notes to Consolidated Financial Statements included in the Company's Annual Report on Form 10-K for fiscal 2008 filed with the SEC on June 13, 2008. The fair value of Stock Awards granted in fiscal 2007 to non-employee Directors was \$57.08 per share. The fair value of Stock Awards granted in fiscal 2008 to non-employee Directors was \$53.44 per share.
- (2) The Option Awards column represents compensation expense recognized for financial reporting purposes during fiscal year 2008 in accordance with Statement of Financial Accounting Standards No. 123(R) related to the awards options granted in fiscal 2007 and 2008. The assumptions used to calculate the value of stock awards are set forth under Note 1 of the Notes to Consolidated Financial Statements included in the Company's Annual Report on Form 10-K for fiscal 2008 filed with the SEC on June 13, 2008. The fair value of Option Awards granted in fiscal 2007 to non-employee Directors was \$19.88 per share. The fair value of Option Awards granted in fiscal 2008 to non-employee Directors was \$22.73 per share.

OWNERSHIP OF COMMON STOCK OF THE COMPANY BY CERTAIN PERSONS

The following table sets forth the number of shares of the Company's voting stock beneficially owned (as determined under the rules of the SEC) directly or indirectly as of July 6, 2008 by (i) each current director of the Company; (ii) each executive officer and former executive officer of the Company named in the Summary Compensation Table below; (iii) all current directors and executive officers of the Company as a group; and (iv) each person who is known to the Company to beneficially own more than five percent (5%) of the outstanding shares of any class of the Company's voting stock, as well as the percentage of the outstanding voting stock represented by each such amount. The information in the table is based on information available to the Company. The total number of shares of Common Stock outstanding as of July 6, 2008 was 8,782,211.

Name of Beneficial Owner(1)	Amount and Nature of	
	Beneficial Ownership(2)(3)	Percent of Class
Denis R. Brown	31,946	(4)
Joseph Callerame	59,606	(4)
Anthony R. Fabiano	122,109	1.4%
Kenneth J. Galaznik	53,507	(4)
William F. Grieco	35,929	(4)
Roger P. Heinisch	40,411	(4)
Hamilton W. Helmer	43,411	(4)
Ernest J. Moniz	33,025	(4)
Robert G. Postle	20,788	(4)
Mark Thompson	14,731	(4)
Carl W. Vogt	43,077	(4)
Directors and Officers as a Group (14 persons)	580,631	6.6%
FMR Corp	771,700	8.8%
T. Rowe Price Associates, Inc.	546,530	6.2%

- (1) Unless otherwise indicated, the address of all persons listed above is c/o American Science and Engineering, Inc., 829 Middlesex Turnpike, Billerica, MA 01821.
- (2) Includes shares that may be acquired under stock options exercisable within sixty days after the date of this table, as follows: Mr. Brown 23,520; Dr. Callerame 39,981; Mr. Fabiano 26,736; Mr. Galaznik 32,006; Mr. Grieco 26,667; Dr. Heinisch 35,000; Dr. Helmer 35,000; Dr. Moniz 26,000; Mr. Postle 9,535; Dr. Thompson 13,090; Mr. Vogt 28,000 and all Current Directors and Officers as a group 343,171.
- (3) Certain executive officers hold restricted shares which we include in this column. The executives may vote the restricted shares, but may not sell or transfer them during the restricted period. These restrictions lapse upon attainment of performance based goals. The Board of Directors hold restricted shares which vest ratably during their term. The individuals in the table hold the following number of restricted shares: Mr. Brown 329; Dr. Callerame 9,326; Mr. Fabiano 64,712; Mr. Galaznik 17,170; Mr. Grieco 9,061; Dr. Heinisch 329; Dr. Helmer 329; Dr. Moniz 329; Mr. Postle 9,764; Dr. Thompson 329; Mr. Vogt 329 and all Current Directors and Officers as a group 135,884.
- (4) Amount owned constitutes less than one percent.

COMPENSATION OF EXECUTIVE OFFICERS

Compensation Discussion and Analysis

Overview

In considering our executive policies and practices we have an obligation to balance our interests in conserving cash and minimizing shareholder dilution with our interest in using compensation to attract, retain and motivate Company management and employees who contribute to our success. Our approach to achieving this balance is to build compensation programs that integrate marketplace appropriate base salaries with short and long-term performance based incentives. The majority of executive compensation is dependent on achievement of annual and long-term Company goals.

We believe that the structure of these programs aligns the financial interests of executives with building the long term value of the Company that will result in an overall increase in shareholder value.

The role of the Compensation Committee

The Compensation Committee of the Board of Directors (consisting of three independent Directors, Mr. Brown, Mr. Vogt, and Dr. Heinisch) has sole responsibility for compensation issues relating to the Chief Executive Officer. In the case of compensation for the Chief Executive Officer, the Committee's determination is reviewed annually by the full Board of Directors. The Committee also oversees the administration of stock option and equity incentive plans. The Committee reports regularly to the full Board of Directors.

Compensation practices and policies for the other executive officers are set by the Chief Executive Officer with the advice and oversight of the Compensation Committee. Typically, the Chief Executive Officer makes annual recommendations to the Committee with respect to executive compensation, other than his own. The Committee reviews his proposals and makes a final determination concerning the scope and nature of compensation arrangements.

The Compensation Committee has retained an independent compensation consultant from The Nadel Consulting Group, Inc. The consultant reports directly to the Compensation Committee. He advises the Compensation Committee on current and future trends and issues in executive compensation and consults on the competitiveness of the compensation structure and levels of the Company's Chief Executive Officer as well as compensation comparisons for other members of the senior staff reporting to the Chief Executive Officer. The consultant also advises the Compensation Committee on appropriate Board of Directors compensation levels and trends.

The Nadel Consulting Group, Inc. has analyzed data from the Economic Research Institute Salary Assessor and Executive database, and the Watson Wyatt Top Management Jobs Interactive database in making recommendations to the Compensation Committee.

In evaluating the compensation of the Chief Executive Officer the Compensation Committee considers several factors including:

Achievement of short and long-term financial and strategic targets and objectives, considering factors such as sales and earnings per share, including specific annual goals;

The Company's position within the industry in which it competes;

Overall Company performance;

Overall economic climate;

Individual contribution to the Company; and

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

Such other qualitative and quantitative factors as the Compensation Committee may deem appropriate.

After reviewing these factors the Compensation Committee determined that an increase in base compensation and long term incentive compensation for fiscal year 2009 was appropriate for the Company's Chief Executive Officer, Mr. Fabiano.

Compensation objectives

The Company's executive compensation program is designed to align executive compensation with financial performance, business strategies and Company values and objectives. This program seeks to enhance the profitability of the Company, and thereby enhance long term stockholder value, by linking the financial interests of the Company's executives with those of its stockholders. Under the guidance of the Compensation Committee, the Company has developed and implemented an executive compensation program to achieve these objectives while providing executives with compensation opportunities that are competitive with companies of comparable size in related industries. It is the Company's philosophy to pay at, or near, industry standards for base salary and to use a combination of short and long-term incentives to reward outstanding Company performance and link the level of the reward to increases in AS&E's long term value as a company.

In applying this philosophy, the Compensation Committee has established a comprehensive program to:

1. Attract and retain executives with outstanding abilities who are critical to the long-term success of the Company
2. Reward executives for attainment of business objectives:
 - a. Company financial objectives; and
 - b. Company operational objectives
3. Link executive incentives to the enhancement of stockholder value by:
 - a. Structuring the majority of the executive's compensation as performance driven ("at risk") incentive compensation; and
 - b. Providing a significant portion of the executive's compensation in equity instruments and establishing equity ownership guidelines for executives and members of the Board of Directors
4. Encourage continued service by providing a total compensation package that increases in value over time and with an increase in shareholder value.

Executive Compensation Program

The Compensation Committee approves the executive compensation program on an annual basis, including specific levels of compensation for all executive officers. The Company's executive compensation program has been designed to implement the objectives described above and is comprised of the following fundamental elements:

Base salary;

Performance based annual cash bonus;

Performance-based long term incentive compensation in the form of equity and/or cash based awards;

Stock ownership guidelines; and

Change of control and severance benefits

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

Each of these elements of compensation is discussed below.

Base Salary Compensation. The Compensation Committee annually reviews and determines the base salaries of the Chief Executive Officer and other members of the senior staff, with its determination with respect to the Chief Executive Officer being subject to approval by the entire Board. The executive's performance for the year is measured against pre-determined goals, and the results are used as a guide for any salary increase. In addition, salary levels for the Company's executive officers are reviewed periodically against comparable industry benchmarks to ensure that such compensation remains at competitive market levels. The Company maintains no formal perquisite program and we believe any perquisites enjoyed by our executives are modest.

In May of 2008 the Compensation Committee and Board of Directors approved modest, market-appropriate base salary increases for the Chief Executive Officer and members of the senior staff for the fiscal year 2009.

Performance Based Annual Bonus Compensation. Performance based annual bonus compensation is an important element to reward and motivate executives by making a significant portion of their compensation dependent on the Company's financial performance.

The annual bonus plan for the Chief Executive Officer and members of the senior staff requires that a pre-determined threshold level of financial performance be met before any bonus is paid. Over-achievement of annual financial objectives is rewarded by prorating the executive's target bonus in relationship to the overachievement of financial goals up to a maximum of 200%. Additional compensation above this level is at the discretion of the Compensation Committee and Board of Directors.

The target bonus (i.e. amount paid for 100% performance) is calculated as a percent of base pay. In fiscal year 2008 the target bonuses were:

Position	Target Cash Bonus as Percent of Base Salary
Chief Executive Officer	100%
Senior Vice President, Chief Financial Officer and Treasurer	65%
Senior Vice President, Worldwide Marketing and Sales	65%
All other Executive Staff	50%

If a threshold performance level of 80% of goal is met, the plan is designed to pay 50% of the target bonus. No bonus is paid below for performance below 80% of goal.

The Chief Executive Officer and members of the senior staff did not receive bonus payments with respect to fiscal year 2008.

Additionally, non-executive staff employees who are in key roles in the Company are eligible for a performance based annual bonus. The target bonus percentage of base salary ranges from 10% to 25%. In fiscal year 2008 the annual bonus was based on meeting a threshold net operating income financial goal and personal objectives for achieving operational goals in individual areas of responsibility. Employees in this group did not receive bonus payments in respect to fiscal year 2008.

Finally, all active employees, with the exception of the Chief Executive Officer and his direct reports, were eligible for a bonus of 10% of base wages earned during the fiscal year based on the Company exceeding its financial target goals for the fiscal year. Employees in this group did not receive bonus payments in respect to fiscal year 2008.

In May of 2008 the Compensation Committee approved a continuation of these annual bonus programs on substantially the same terms for fiscal year 2009.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

Long-Term Incentive Compensation. The Company adopted a long-term incentive compensation program (LTIP) in fiscal year 2006. This program consists of the granting of restricted stock and options subject to performance-based vesting, and is intended to align executive interests with long-term interests of stockholders by linking executive compensation with stockholder value enhancement. In addition, the program motivates executives to improve long-term stock market performance by requiring them to develop and maintain a long-term equity ownership position in the Company's common stock. These long term incentive grants are awarded by the Compensation Committee based on a formula related to the position and base salary compensation of executives.

Long term goals that we expect to be achievable within a three to five year horizon are approved annually by the Compensation Committee in consultation with management and the full Board of Directors. These goals include both the financial metrics and business objectives that we believe will result in the growth of long term shareholder value. A portion of the long term incentive compensation vests as each of the goals is met. 100% of the award will vest if all of the goals are met within the five year term limit of the award. If some portion of the goals is not met within the five year timeframe, half of the unvested value of the long term incentive compensation cliff vests and the remainder is forfeited. We believe that the combination of strict performance vesting modified by a partial cliff vesting provision achieves a balance of performance incentive and executive retention that serves the best interests of the stockholders.

The long term incentive plan that was initiated in fiscal year 2007 calculates the initial value of the award as a percentage of the executive's base salary as follows:

Position	Value of Award as a Percent of Base Salary
Chief Executive Officer	200%
Senior Vice President, Chief Financial Officer and Treasurer	100%
All other executive staff	60%

Goals for this award include revenue growth, new product introductions and return on adjusted net assets over the term of the program. No portion of this award was paid in fiscal year 2008.

Based on a review of market and business conditions the Compensation Committee established the value of the long term incentives for the program initiated in fiscal year 2008 as follows:

Position	Value of Award as a Percent of Base Salary
Chief Executive Officer	400%
Senior Vice President, Chief Financial Officer and Treasurer	200%
All other executive staff	120%

Goals for this award include revenue growth, new product introductions and return on adjusted net assets over the term of the program. No portion of this award was paid in fiscal year 2008.

In May of 2008 the Compensation Committee approved a long term incentive program beginning in fiscal year 2009 with the same target values as the program begun in fiscal year 2008. Goals for this program include product revenue growth, new product introductions and return on adjusted net assets over the term of the program. The award for this program consists of restricted cash, restricted stock and restricted options.

The long term incentive compensation program contains a "claw-back" provision that reverses the vesting of stock, option or cash awards if a subsequent material financial restatement results in the goals not being met.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

Stock Ownership Guidelines. The members of the Board of Directors, the Chief Executive Officer, the Senior Vice President, Chief Financial Officer and Treasurer and other members of the executive staff (direct reports to the Chief Executive Officer) are required to build and hold a personal portfolio of AS&E common stock according to the following guidelines:

Position	Value of Stock Owned as a Percentage of Base Salary
Members of the Board of Directors	1,000% (Target keyed off cash retainer)
Chief Executive Officer	300%
Senior Vice President, Chief Financial Officer and Treasurer	100%
Other Executive Staff directly reporting to the CEO	50%

Change of Control and Severance Benefit. Although no change of control or change in executive staff assignments is contemplated at this time, we cannot predict the future. To ensure that our compensation package remains competitive with industry practice and that the incentives of the executives are further aligned with the best interests of the stockholders in the event of a change of control of the Company, the Company adopted a Change of Control and Severance Benefit agreement for the members of the Executive Staff as follows:

	Benefit
Executive Staff Severance	1X current annualized base salary.
Executive Staff Change in Control	2X current annualized salary plus target bonus plus vesting of all options and restricted stock then held by the Executive
Change in Control Protection Period	24 Months

In fiscal year 2008 Andrey Mishin, former Vice President and Senior Technical Fellow, received a severance benefit under this plan equal to one times his then annualized base salary.

The Change of Control and Severance Benefits for the Chief Executive Officer are governed by an Employment Agreement which was adopted in February 2008.

Employment Contract for the Chief Executive Officer

On February 7, 2008, the Board of Directors of the Company approved the terms of an Employment Agreement (the "Agreement") with its President and Chief Executive Officer, Anthony Fabiano. The Agreement contains provisions similar to those contained in Mr. Fabiano's November 3, 2005 Change in Control and Severance Benefit Agreement and other agreements previously executed by Mr. Fabiano, which agreements have been superseded by the Agreement.

Under the terms of the Agreement, the Company will employ Mr. Fabiano for an initial three-year term, which commenced on February 7, 2008, and which will automatically renew for successive one-year terms, unless either the Company or Mr. Fabiano provides written notice that the Agreement shall not be renewed at least three months prior to the expiration of the then current term. Mr. Fabiano will receive an annual base salary of \$500,000. Mr. Fabiano will also be eligible to participate in the Company's long-term incentive programs, in accordance with the terms thereof, on a basis at least as favorable as other senior executives of the Company. Additionally, Mr. Fabiano will be eligible for an annual cash bonus with a target amount of 100% of his base salary and a maximum

amount of 200% of his base salary. The amount paid will be determined based upon objective performance metrics set by the Board of Directors. In addition to participating in the Company's employee benefit plans, Mr. Fabiano will receive certain additional life insurance and long-term disability insurance benefits.

The Agreement also provides Mr. Fabiano with severance benefits if his employment is terminated under certain circumstances. Specifically, if Mr. Fabiano's employment terminates for any reason other than Cause or his resignation without Good Reason (each as defined in the Agreement), he is entitled to a pro rata bonus payment for the year in which termination occurs. In addition, if Mr. Fabiano's employment terminates by reason of his death, he is entitled to a lump sum payment equal to two times the average of his last three years of base salary, and the Company will continue to pay the premium cost of medical and dental insurance for his eligible dependents for 18 months. If Mr. Fabiano's employment terminates by reason of disability, the Company will continue to pay the premium cost of medical and dental insurance for 18 months and will continue to provide certain life insurance benefits for 18 months. In the event the Company terminates Mr. Fabiano's employment without Cause or if Mr. Fabiano resigns from his employment for Good Reason, he is entitled to receive a lump sum payment equal to two times the sum of his base salary and target bonus, and the Company will continue to pay the premium cost of medical and dental insurance and will continue to provide certain life insurance benefits for 18 months.

Mr. Fabiano is also entitled to receive change of control benefits if the Company terminates his employment without Cause or he resigns for Good Reason within two years following a change of control of the Company. In that instance, Mr. Fabiano would be entitled to receive a lump sum payment equal to 2.9 times the sum of his base salary and target bonus, and the Company will continue to pay the premium cost of continued medical and dental insurance and will continue to provide certain life insurance benefits for 3 years. In addition, all of Mr. Fabiano's outstanding and unvested stock-based awards will accelerate. In the event that any of Mr. Fabiano's stock-based awards are not assumed or replaced upon a change of control of the Company, all such awards that are unvested shall become vested and exercisable immediately prior to the change of control, regardless of whether or not Mr. Fabiano's employment has been terminated. The change of control benefits may be reduced as necessary to minimize imposition of any tax under Section 4999 of the Internal Revenue Code, as amended.

All severance benefits other than those paid in the event of termination by reason of Mr. Fabiano's death are conditioned upon his signing a release of claims and complying with certain non-disparagement obligations. All severance benefits will be paid in accordance with Section 409A of the Internal Revenue Code, as amended.

Mr. Fabiano is required to protect the secrecy of the Company's confidential information. Further, the Agreement contains an assignment of rights to intellectual property provision, as well as non-competition and employee and customer non-solicitation obligations extending for the duration of employment and for one year after employment terminates, unless Mr. Fabiano's employment is terminated by the Company without Cause or he resigns for Good Reason within two years following a change of control.

Relationship of each compensation element

The base salary, annual cash bonus, long term incentive and stock ownership components of our executive compensation programs put a strong emphasis on rewarding the executive for achieving the short term and long term business results that will build the fundamental value of the Company. Base salaries are intended to be competitive with executives in similar types and size range of companies. The "at risk" performance nature of the annual bonus and long term incentive constitute the majority of the executives' total compensation package. Stock ownership guidelines further align the executive

interests with those of the shareholders. Taken together we believe that these elements align the executives' total compensation with sustainable increase in the fundamental value of the Company over time.

Further, we believe that the change in control and severance benefits are appropriate for the competitive and volatile marketplace in which we compete and ensure that the Company can attract and retain the best executive talent available.

Compensation Committee Report

The following Report of the Compensation Committee does not constitute soliciting material and should not be deemed filed or incorporated by reference into any other Company filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent the Company specifically incorporates this Report.

The Compensation Committee has discussed and reviewed the Compensation Discussion and Analysis with management. Based upon this review and discussion the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement and incorporated by reference in our Annual Report on Form 10-K.

Report Submitted By: Denis Brown, Roger Heinisch and Carl Vogt

Summary Compensation Table

The table below shows the annual compensation of our principal executive officer, principal financial officer and our next three most highly compensated executive officers (the "Named Executive Officers") for the fiscal years indicated.

Name and Principal Position	Year	Salary (\$)	Non-Equity Incentive Plan Compensation (\$)	Stock Awards (\$)(1)	Option Awards (\$)(2)	All Other Compensation (\$)(3)	Total Compensation (\$)
Anthony R. Fabiano	2008	498,000		616,000	202,000	11,000	1,327,000
President and Chief Executive Officer	2007	399,000	687,000	550,000	353,000	12,000	2,001,000
Joseph Callerame							
Senior Vice President, Science and Technology	2008	230,000		93,000	87,000	10,000	420,000
	2007	225,000	195,000	94,000	154,000	9,000	677,000
Kenneth J. Galaznik							
Senior Vice President, Chief Financial Officer and Treasurer	2008	230,000		159,000	324,000	9,000	722,000
	2007	219,000	248,000	139,000	421,000	9,000	1,036,000
William F. Grieco							
Senior Vice President, General Counsel and Clerk	2008	225,000		87,000	323,000	10,000	645,000
	2007	206,000	156,000	28,000	305,000	5,000	700,000
Robert G. Postle							
Senior Vice President, Worldwide Sales and Marketing	2008	235,000		94,000	86,000	6,000	421,000
	2007	225,000	241,000	101,000	206,000	7,000	780,000

(1) The Stock Awards column represents compensation expense recognized for financial reporting purposes during the fiscal year indicated in accordance with SFAS 123 R related to the awards of performance based restricted shares granted.

(2) The Option Awards column represents compensation expense recognized for financial reporting purposes during the fiscal year indicated in accordance with SFAS 123 R related to the awards of performance based options granted and other stock option awards granted which vest on a service period basis.

(3) All Other Compensation includes payments by the Company for life insurance premiums and matching contributions to the employee's 401(k) account.

Grants of Plan-Based Awards in Fiscal Year 2008

The following table provides information on all plan-based awards granted in the fiscal year ended March 31, 2008 to the Named Executive Officers. The option awards and the unvested portion of the stock awards identified in the table below are also reported in the Outstanding Equity Awards at 2008 Fiscal Year End table.

Name	Grant Date	Estimated future payouts under non-equity incentive plan awards (\$)(1)			Estimated future payouts under equity incentive plan awards (# of shares)			Exercise or base price of option awards (\$/share)	Grant date fair value of stock and option awards(2) (\$/share)
		Threshold	Target	Maximum	Threshold	Target	Maximum		
Anthony R. Fabiano		N/A	\$ 498,000	\$ 996,000					
	8/15/07				14,647	29,294	29,294		\$ 61.45
	8/15/07				3,895	7,789	7,789	\$ 61.45	\$ 22.25
	9/14/07				629	1,258	1,258	\$ 60.66	\$ 21.24
Joseph Callerame		N/A	\$ 115,000	\$ 230,000					
	8/15/07				2,022	4,045	4,045		\$ 61.45
	8/15/07				538	1,076	1,076	\$ 61.45	\$ 22.25
	9/14/07				87	173	173	\$ 60.66	\$ 21.24
Kenneth J. Galaznik		N/A	\$ 149,000	\$ 299,000					
	8/15/07				3,371	6,742	6,742		\$ 61.45
	8/15/07				897	1,793	1,793	\$ 61.45	\$ 22.25
	9/14/07				145	289	289	\$ 60.66	\$ 21.24
	11/23/07					1,200	1,200		\$ 48.26
William F. Grieco		N/A	\$ 112,000	\$ 225,000					
	8/15/07				1,979	3,958	3,958		\$ 61.45
	8/15/07				527	1,053	1,053	\$ 61.45	\$ 22.25
	9/14/07				85	169	169	\$ 60.66	\$ 21.24
Robert G. Postle		N/A	\$ 153,000	\$ 306,000					
	8/15/07				2,089	4,177	4,177		\$ 61.45
	8/15/07				556	1,111	1,111	\$ 61.45	\$ 22.25
	9/14/07				90	179	179	\$ 60.66	\$ 21.24

(1) Amounts shown are estimated payouts for fiscal year 2008 for the Named Executive Officers under the annual bonus plan. Target amounts are based on a percentage of the individual's 2008 base salary as outlined in the Compensation Discussion and Analysis above. The Maximum amounts are based on 200% of the Named Executive Officers base salary for fiscal year 2008. Actual amounts received are reflected in the Summary Compensation Table above.

(2) The Grant date fair value column represents the fair value of option awards calculated using the Black-Scholes option pricing model. The assumptions used to calculate the value of the option awards are set forth under Note 1 of the Notes to Consolidated Financial Statements included in the Company's Annual Report on Form 10-K for fiscal year 2008 filed with the SEC on June 13, 2008. The fair values reported for stock awards are equal to the market price per share of the Company's common stock on the date of grant.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

Outstanding Equity Awards at 2008 Fiscal Year End

The following table sets forth information regarding the number of equity awards held by the Named Executive Officers at March 31, 2008.

Name	Option Awards				Stock Awards	
	Number of securities underlying unexercised Options (#) Exercisable	Number of securities underlying unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Incentive Plans: Number of shares or units that have not yet vested (#)	Incentive Plans: Market value of shares or units that have not yet vested (\$)
Anthony R. Fabiano	5,273(1)		\$ 10.28	9/8/2013	42,928	\$ 2,343,000
	18,666(2)		\$ 39.06	12/2/2014		
	2,797(3)		\$ 53.55	11/1/2015		
		3,734(4)	\$ 52.82	6/20/2016		
		7,789(4)	\$ 61.45	8/15/2017		
		1,258(4)	\$ 60.66	9/14/2017		
Joseph Callerame					6,346	\$ 346,000
	16,000(5)		\$ 11.35	9/20/2011		
	10,000(6)		\$ 15.65	4/15/2014		
	13,500(7)		\$ 39.06	12/2/2014		
	481(3)		\$ 53.55	11/1/2015		
		630(4)	\$ 52.82	6/20/2016		
		1,076(4)	\$ 61.45	8/15/2017		
		173(4)	\$ 60.66	9/14/2017		
Kenneth J. Galaznik					11,692	\$ 638,000
	1,000(8)		\$ 10.34	7/21/2013		
	1,000(9)		\$ 13.08	11/20/2013		
	6,000(7)		\$ 39.06	12/2/2014		
	23,333(10)		\$ 44.35	2/25/2015		
	673(3)		\$ 53.55	11/1/2015		
		1,027(4)	\$ 52.82	6/20/2016		
		1,793(4)	\$ 61.45	8/15/2017		
		289(4)	\$ 60.66	9/14/2017		
William F. Grieco					6,004	\$ 328,000
	26,667(11)	13,333(11)	\$ 60.40	1/18/2016		
		560(4)	\$ 52.82	6/20/2016		
		1,053(4)	\$ 61.45	8/15/2017		
		169(4)	\$ 60.66	9/14/2017		
Robert G. Postle					6,478	\$ 354,000
	9,000(7)		\$ 39.06	12/2/2014		
	535(3)		\$ 53.55	11/1/2015		
		630(4)	\$ 52.82	6/20/2016		
		1,111(4)	\$ 61.45	8/15/2017		
		179(4)	\$ 60.66	9/14/2017		

- (1) Original grant of 75,000 options vested in three annual installments beginning 9/8/2004.
- (2) Original grant of 28,000 options vests in three annual installments beginning 12/2/2005.
- (3) Options vested on 3/31/2007.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

- (4) Options vest upon attainment of performance based goals over a five year period. If performance goals not met within five year period, 50% of options vest at that time.
- (5) Original grant of 20,000 options vested in three annual installments beginning 9/20/2002.
- (6) Original grant of 12,000 options vested in three annual installments beginning 4/15/2005.
- (7) Option grants vested in three annual installments beginning 12/2/2005.
- (8) Original grant of 3,000 options vested in three annual installments beginning 7/21/2004.
- (9) Original grant of 3,000 options vested in three annual installments beginning 11/20/2004.
- (10) Original grant of 35,000 options vests in three annual installments beginning 2/25/2006.
- (11) Original grant of 40,000 options vests in three annual installments beginning 1/18/2007.

Option Exercises and Stock Vested in Fiscal 2008

The following table sets forth information regarding the number of shares acquired and value realized for stock options exercised and restricted stock awards vested during fiscal 2008.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise	Value on Exercise	Number of Shares Acquired on Vesting	Value on Vesting
Anthony R. Fabiano	19,727	\$ 923,000		
Joseph Callerame				
Kenneth J. Galaznik				
William F. Grieco				
Robert G. Postle	12,000	\$ 645,000		

United States Federal Income Tax Consequences

The following discussion is a summary of the federal income tax consequences relating to the grant and exercise of any stock based awards under the LTIP program as well as other stock based awards granted. The discussion also summarizes the subsequent sale of common shares that will be acquired under the above grants. The tax effect of exercising awards may vary depending upon the particular circumstances, and the income tax laws and regulations may change. This summary assumes that all awards granted are exempt from or comply with Section 409A of the Internal Revenue Code of 1986 as amended (the Code), relating to nonqualified deferred compensation plans.

Nonqualified Stock Options. There will be no federal income tax consequences to a participant or to the Company upon the grant of a nonqualified stock option. When the participant exercises a nonqualified option, he or she will recognize ordinary income in an amount equal to the excess of the fair market value of the option shares on the date of exercise over the exercise price, and the Company will generally be allowed a corresponding tax deduction, subject to any applicable limitations under Section 162(m) of the Code. Any gain that a participant realizes when the participant later sells or disposes of the option shares will be short-term or long-term capital gain, depending on how long the participant held the shares.

Incentive Stock Options. There will be no federal income tax consequences to a participant or to the Company upon the grant of an incentive stock option. If the participant holds the option shares for the required holding period of at least two years after the date the option was

granted and one year after exercise of the option, the difference between the exercise price and the amount realized upon sale or disposition of the option shares will be long-term capital gain or loss, and the Company will not

be entitled to a federal income tax deduction. If the participant disposes of the option shares in a sale, exchange, or other disqualifying disposition before the required holding period ends, the participant will recognize taxable ordinary income in an amount equal to the difference between the exercise price and the lesser of the fair market value of the shares on the date of exercise or the disposition price, and the Company will be allowed a federal income tax deduction equal to such amount, subject to any applicable limitations under Section 162(m) of the Code. Any amount received by the participant in excess of the fair market value on the exercise date will be taxed to the participant as capital gain, and the Company will generally receive no corresponding deduction. While the exercise of an incentive stock option does not result in current taxable income, the excess of the fair market value of the option shares at the time of exercise over the exercise price will be a tax preference item for alternative minimum tax purposes unless a disqualifying disposition occurs within the same taxable year.

Restricted Stock Awards. Unless a participant makes an election to accelerate recognition of income to the grant date as described below, the participant will not recognize income, and the Company will not generally be allowed a tax deduction, at the time a restricted stock award is granted. When the restrictions lapse, the participant will recognize ordinary income equal to the fair market value of the stock as of the vesting date, less any amount paid for the stock, and the Company will generally be allowed a corresponding tax deduction, subject to any applicable limitations under Section 162(m) of the Code. If the participant files an election under Section 83(b) of the Code within 30 days after the grant date, the participant will recognize ordinary income as of the grant date equal to the fair market value of the stock as of that date, less any amount paid for the stock, and the Company will generally be allowed a corresponding tax deduction at that time, subject to any applicable limitations under Section 162(m) of the Code. Any future appreciation in the stock will be taxable to the participant at capital gains rates. However, if the stock is later forfeited, such participant will not be able to recover the tax previously paid pursuant to the Section 83(b) election.

Code Section 409A

Code Section 409A imposes restrictions on nonqualified deferred compensation, and covers most arrangements that defer the receipt of compensation, and certain awards under the Amended Plan are subject to these rules. Failure to comply with the requirements of Code Section 409A and the related guidance and regulations may result in the early taxation of deferred compensation and the imposition of a 20% penalty to the recipient. Code Section 409A is effective with respect to amounts deferred after December 31, 2004 and amounts deferred prior to 2005 that were not vested as of December 31, 2004. Code Section 409A may also apply to amounts deferred earlier under arrangements that are materially modified after October 3, 2004. Final guidance relating to certain aspects of Code Section 409A was issued in April of 2007 and employers had certain opportunities to amend plan documentation for nonqualified deferred compensation by December 31, 2007 in order to bring plans into compliance with Code Section 409A.

Potential Payments upon Termination or Change in Control

Mr. Fabiano's employment agreement contains change in control and severance benefit provisions and Mr. Galaznik and the other Named Executive Officers have Change in Control and Severance Benefit Agreements ("CIC Agreements") with the Company.

Termination following a change in control:

With respect to Mr. Fabiano, pursuant to the terms of his Employment Agreement (i) if Mr. Fabiano is terminated in connection with a change of control of the Company, Mr. Fabiano will be eligible to receive (A) a pro-rata bonus for the fiscal year in which the termination occurs calculated based on the target bonus and the number of days in such year that Mr. Fabiano was employed, (B) a payment equal to 2.9 times his then current annualized base salary plus his annual target bonus,

(C) the payment or continuation of health benefits and life insurance coverage for three years and (D) the vesting of all options and restricted stock then held by Mr. Fabiano.

With respect to Mr. Galaznik, and the other Named Executive Officers, pursuant to the terms of their CIC Agreements, (i) if a designated executive is terminated in connection with a change of control of the Company, such executive will be eligible to receive (A) a payment equal to two times such executive's then current annualized base salary plus his annual target bonus, (B) the payment or continuation of health benefits for eighteen months and (C) the vesting of all options and restricted stock then held by the executive.

Name	Cash(1)(2)	Value of Accelerated Equity Awards(3)
Anthony R. Fabiano	\$ 2,382,000	\$ 2,349,000
Joseph Callerame	\$ 698,000	\$ 417,000
Kenneth J. Galaznik	\$ 749,000	\$ 640,000
William F. Grieco	\$ 623,000	\$ 329,000
Robert G. Postle	\$ 766,000	\$ 355,000

- (1) Cash payment amounts are based on the following components:
- a. Base pay using current salary
 - b. Annual cash incentive calculated by taking current salary multiplied by target cash bonus percentage
 - c. Health benefits based on current COBRA rates
 - d. For Mr. Fabiano, life insurance premiums of \$5,000 annually
- (2) Payment calculated assuming termination on last day of fiscal year therefore no pro-rata bonus payment is included.
- (3) Assumes stock price of \$54.57, which was the closing price of our stock on March 30, 2008, the last trading day of the Company's fiscal year.

Termination outside of a change in control:

In the event Mr. Fabiano is terminated by the Company without cause, he will be eligible to receive (A) a pro-rata bonus for the fiscal year in which the termination occurs calculated based on the target bonus and the number of day in such year that Mr. Fabiano was employed, (B) a payment equal to two times his then current annualized base salary and target bonus and (C) the payment or continuation of health benefits and life insurance coverage for eighteen months. The foregoing payments shall be limited to the extent necessary to comply with Sections 280G and 409A of the Internal Revenue Code of 1986, as amended. The change in control provisions of the program will expire as to Mr. Fabiano effective February 7, 2011, but shall be automatically renewed for one-year terms. Under his employment agreement, Mr. Fabiano will be required to comply with certain non-competition restrictions for a period of time after his termination.

In the event a designated executive is terminated by the Company without cause, he will be eligible to receive (A) a payment equal to one times such executive's then current annualized base salary and (B) the payment or continuation of health benefits for one year. The foregoing payments shall be limited to the extent that this compensation is not deductible pursuant to Section 280G or would result in the compensation violating Section 409A of the Code. In February 2008, the Board of Directors renewed the protection afforded under the CIC Agreements to Mr. Fabiano and the other Named Executive Officers for an additional three years. This was accomplished for Mr. Fabiano through the execution of the above-referenced Employment Agreement, and for the other Named Executives

through the modification of the existing CIC Agreements. Under Mr. Fabiano's employment agreement and the other Named Executive Officer's CIC Agreements, each Named Executive Officer will be required to comply with certain non-competition restrictions for a period of time after his termination.

Name	Cash(1)
Anthony R. Fabiano	\$ 1,631,000(2)
Joseph Callerame	\$ 353,000
Kenneth J. Galaznik	\$ 378,000
William F. Grieco	\$ 315,000
Robert G. Postle	\$ 387,000

- (1) Cash payment amounts are based on the following components:
- a. Base pay using salary as of June 15, 2008
 - b. Health benefits based on current COBRA rates
 - c. Mr. Fabiano life insurance premiums of \$5,000 annually
- (2) Payment calculated assuming termination on last day of fiscal year therefore no pro-rata bonus payment is included.

Compensation Committee Interlocks and Insider Participation

During the fiscal year ended March 31, 2008, the Company's Compensation Committee consisted of Dr. Roger Heinisch, Mr. Denis Brown and Mr. Carl Vogt. Other than Dr. Roger Heinisch, who served as Interim President and Chief Executive Officer of the Company from May 2003 to September 2003, none of the Compensation Committee's current or former members has at any time been an officer or employee of the Company. None of the Company's executive officers serve, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more of its executive officers serving on the Company's Board or Compensation Committee.

Policies and Procedures with Respect to Related Party Transactions

The Company has adopted a policy that members of the Audit Committee, all of whom are independent directors, review and approve all related party transactions for which such approval is required under applicable law, including SEC and NASDAQ rules. Current SEC rules define a related party transaction to include any transaction, arrangement or relationship in which the Company is a participant and in which any of the following persons has or will have a direct or indirect interest:

an executive officer, director or director nominee of the Company;

any person who is known to be the beneficial owner of more than 5% of the Company's common stock;

any person who is an immediate family member (as defined under Item 404 of Regulation S-K) of an executive officer, director or director nominee or beneficial owner of more than 5% of the Company's common stock; or

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

any firm, corporation or other entity in which any of the foregoing persons is employed or is a partner or principal or in a similar position or in which such person, together with any other of the foregoing persons, has a 5% or greater beneficial ownership interest.

In addition, the Nominating and Corporate Governance Committee is responsible for reviewing and investigating any matters pertaining to the integrity of officer and directors, including conflicts of

interest and adherence to the Company's Code of Business Conduct and Ethics. Under the Code of Business Conduct, directors, officers and all other members of the workforce are expected to avoid any relationship, influence or activity that would cause or even appear to cause a conflict of interest. Likewise, under the Code of Business Conduct, the knowing failure of an employee, officer or director to disclose conflicts of interest can subject such individual to disciplinary action, including dismissal or removal from office

All related party transactions shall be disclosed in the Company's applicable filings with the SEC as required under SEC rules.

Certain Relationships and Related Party Transactions

There was no related party transactions during fiscal year 2008 required to be reported pursuant to this item.

PROPOSAL NO. 2

INCREASE IN AUTHORIZED SHARES UNDER THE 2005 EQUITY AND INCENTIVE PLAN

The Board of Directors voted to amend the Company's 2005 Equity and Incentive Plan (the "2005 Plan" or the "Plan") on July 24, 2008, subject to stockholder approval, to increase the maximum number of shares available to be issued from 750,000 to 1,000,000, and is seeking the approval of the amendment to the 2005 Plan at the 2008 Annual Meeting of Stockholders of the Company. As of June 30, 2008, 85,792 shares remain available for issuance pursuant to the 2005 Plan. A favorable vote of the holders of at least a majority of the shares of Common Stock of the Company present in person or represented by proxy at the Meeting is required for approval of the amendment to the 2005 Plan. The Board recommends that stockholders vote for such approval. The 2005 Plan is an important part of the Company's compensation program and the Board of Directors believes it is essential to the Company's ability to attract and retain highly qualified employees in an extremely competitive environment in which employees view equity incentives as an important component of their compensation. The 2005 Plan provides the Company with flexibility to issue restricted stock, restricted stock units, incentive and nonstatutory options, cash awards and stock appreciation rights.

The 2005 Plan was adopted by the Board of Directors as of July 20, 2005 and approved by the stockholders on September 15, 2005. The following is a summary of certain material features of the 2005 Plan and is qualified in its entirety by reference to the full text of the 2005 Plan, which is set forth as Appendix A to this Proxy Statement.

Principal Features of the 2005 Plan

Purpose

The purpose of the 2005 Plan is to (1) provide long-term incentives and rewards to employees, officers, directors and consultants of the Company and its affiliates who are in a position to contribute to the long-term success and growth of the Company and its affiliates, (2) assist the Company and its affiliates in attracting and retaining persons with the requisite experience and ability and (3) more closely align the interests of the participants in the 2005 Plan with the interests of the Company's stockholders.

Administration

Awards are made by the Compensation Committee, which has been designated by the Company's Board of Directors to administer the 2005 Plan. The Compensation Committee determines which eligible persons shall receive an award and the terms and conditions of each award, including, if relevant, the exercise price, the form of payment of the exercise price, the number of shares, cash or other consideration subject to the award, the vesting schedule and the term. The Compensation Committee also makes all other determinations and interpretations under the 2005 Plan. Subject to certain limitations, the Compensation Committee may delegate to one or more of the Company's executive officers the power to make awards to participants who are not subject to Section 16 of the Securities Exchange Act of 1934.

Eligibility

While incentive stock options may only be granted to employees of the Company or a subsidiary, all other awards may be granted to employees, officers, directors, and consultants of the Company or any affiliate. As of March 31, 2008, the Company had approximately 337 employees, nine officers, and seven directors that would be eligible to receive awards under the 2005 Plan.

Shares Issuable under the 2005 Plan, Share Counting and Individual Limitations

An aggregate of 750,000 shares of Common Stock were originally available for grants of awards under the 2005 Plan. As of June 30, 2008, 85,792 shares remain available for issuance pursuant to the 2005 Plan. The amendment to the 2005 Plan would increase the maximum number of shares of Common Stock available for sale under the 2005 Plan to 1,000,000. Shares subject to awards of options or stock appreciation rights count against this limit as one share for every share subject to the award, but shares subject to all other types of awards under the 2005 Plan count against this limit as 1.5 shares for every share subject to the award. Shares subject to awards that are canceled, terminated, expired, forfeited, lapsed, or settled in cash, shall again be available for issuance under the 2005 Plan. Shares tendered as payment of exercise or withheld to satisfy tax withholding obligations or repurchased by the Company using proceeds from options shall not be available for future issuance. Equitable adjustments will be made to the number of shares available for issuance under the 2005 Plan in the event of stock dividends, recapitalization, stock split, and the like.

All of the shares available under the 2005 Plan will be available for issuance upon exercise of incentive stock option awards. No single participant may receive in any fiscal year awards for more than 250,000 shares of Common Stock, except that in the first year of employment awards for an additional 250,000 shares of Common Stock may be granted. As to awards settled in cash intended to qualify as "performance-based compensation", no more than \$2,500,000 per year may be paid to any single participant.

Description of Available Awards

The 2005 Plan provides for the following basic types of awards:

Stock Options. The Compensation Committee may grant options to purchase shares of Common Stock that are either incentive stock options (ISOs) eligible for the special tax treatment described below, or nonstatutory stock options (NSOs). No option may have an exercise price that is less than the fair market value of the Common Stock on the date of grant. The Compensation Committee may establish exercise periods in the option agreement, provided that no options may be exercised after the expiration of ten years from the grant date. If no specific periods are specified, an option shall remain exercisable for three months following the date the participant ceases to be a service provider, but in no event after the expiration of the term of the option. In the event of death or disability, then, in the absence of specified periods in the option agreement, the option will be exercisable for twelve months from the date the participant ceases to be a service provider, but in no event after the expiration of the term. The Compensation Committee may not provide exercise periods longer than three years following the termination of service.

Reload features which provide for automatic grants of additional or replacement options upon exercise are prohibited.

An option may be exercised by the payment of the option price in cash, by actual delivery or attestation of ownership of shares of Common Stock owned by the participant, by retaining shares of Common Stock otherwise issuable upon exercise of the option, for consideration received by the Company under a broker-assisted cashless exercise program, or for such other lawful consideration as the Compensation Committee may determine.

Additional restrictions apply to the granting of ISOs. ISOs may only be granted to employees. The aggregate fair market value of all shares subject to ISO awards exercisable for the first time by a participant during any calendar year may not exceed \$100,000. Ten percent holders of the Company's stock may not receive ISOs unless the exercise price is at least 110% of the fair market value on the date of grant and the option expires no later than five years from grant.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

Stock Appreciation Rights. The Compensation Committee may grant Stock Appreciation Rights (SARs), where the participant receives cash or shares of Common Stock equal in value to the difference between the exercise price of the SAR and the fair market value of the Common Stock on the date of exercise multiplied by the number of options with respect to which the SAR is being exercised. SARs may be granted in tandem with options (at or after award of the option) or alone and unrelated to an option. SARs in tandem with an option terminate to the extent that the related option is exercised, and the related option terminates to the extent that the tandem SAR is exercised. The exercise price of an SAR may not be less than the fair market value of the Common Stock on the date of grant or, in the case of a tandem SAR, the exercise price of the related option. The discussion above of exercise periods applicable to options is also applicable to SARs.

Restricted Stock. The Compensation Committee may grant shares of Common Stock that may be subject to certain terms, conditions and restrictions, such as the requirement to pay a purchase price for the shares and restrictions on transfer during a period of time specified by the Compensation Committee.

Restricted Stock Units. The Compensation Committee may grant the right to receive shares of Common Stock (or the equivalent value in cash or other property) in the future that may be subject to certain terms, conditions and restrictions, such as the requirement to pay a purchase price for the units and forfeiture provisions. These awards are to be made in the form of "units," each representing the equivalent of one share of Common Stock, although they may be settled in either cash or stock. Restricted stock unit awards represent an unfunded and unsecured obligation of the Company.

General Provisions Applicable to Awards

In setting the terms of each award, except as noted above, the Compensation Committee has full discretion to determine the number of shares or units subject to the award, the exercise price or other consideration, if any, to be paid by the participant, the term and exercise period of each option granted, the conditions under which and the time or times at which an option becomes exercisable or under which the option, shares or units may be forfeited to the Company, and the other terms and conditions of the award. The Compensation Committee may also grant awards subject to performance conditions, awards that come with dividends or dividend equivalents or cash awards that may be subject to certain terms, conditions and restrictions. Upon a change in control of the Company as defined by the Compensation Committee, the Compensation Committee may (1) provide for acceleration of time periods for exercise or payment of an award, (2) provide for payment to the participant of cash or other property equal to the amount that would have been received upon exercise or payment of the award had the award been exercised or paid upon the change in control, (3) adjust the terms of the award to reflect the change in control, (4) cause the award to be assumed, or new rights substituted for such award, by another entity, or (5) make such other provision as the Compensation Committee deems equitable to participants and in the best interests of the Company. The terms and conditions of awards need not be the same for each participant.

Additional Restrictions

The Compensation Committee may not authorize the making of loans to participants in connection with the grant or exercise of awards. The Company may not reprice options or SARs without stockholder approval. The 2005 Plan requires a vesting period for all restricted stock or restricted stock unit awards of at least three years, except for awards granted in lieu of cash; awards that satisfy a performance-based vesting schedule; and except in the cases of death, disability, retirement, change in control, termination by the Company. The 2005 Plan allows for restricted stock or restricted stock unit awards to consultants, directors or newly-hired employees and awards to vest up to 1,000 shares per year to have a shorter vesting schedule, provided that these awards shall not exceed 75,000 shares in the aggregate.

Amendment and Term of the 2005 Plan

The Board may amend, suspend or terminate the 2005 Plan subject to any stockholder approval that the Board determines to be necessary or advisable to comply with any tax or regulatory requirements. Stockholder approval is required, however, if the Board materially amends the 2005 Plan to materially increase the number of shares that may be issued under the 2005 Plan, materially increase benefits to participants, materially expand the class of participants eligible to participate in the 2005 Plan, or expand the types of awards provided under the 2005 Plan. Subject to the special limitations on the repricing of stock options or SARs, the Compensation Committee has authority to amend outstanding awards, including changing the date of exercise and converting an ISO to an NSO, if the Compensation Committee determines that such action would not materially and adversely affect the participant or the action is specifically permitted by the 2005 Plan.

Unless terminated earlier by the Board or extended by subsequent approval of the Company's stockholders, the term of the 2005 Plan will expire on September 15, 2015.

Awards under the 2005 Plan

As noted above, awards under the 2005 Plan will be made at the discretion of the Compensation Committee. The Compensation Committee has not made any decisions on the amount and type of awards that are to be made to our employees in future years. The following table sets forth information concerning stock-related awards under the 2005 Plan to our named executive officers, executive officers as a group, non-executive directors as a group and non-executive officer employees as a group. Please refer to "Compensation of the Named Executive Officers and Directors Outstanding Equity Awards at 2008 Fiscal Year End" for further information on these grants. This information may not be indicative of awards that will be made under the 2005 Plan in future years.

2005 Equity and Incentive Plan

Name and Position	Number of Option Awards	Number of Stock Awards
Anthony R. Fabiano <i>President and Chief Executive Officer</i>	21,438	74,406
Joseph Callerame <i>Senior Vice President, Science and Technology</i>	3,162	10,994
Kenneth J. Galaznik <i>Senior Vice President, Chief Financial Officer and Treasurer</i>	5,256	19,502
William F. Grieco <i>Senior Vice President, General Counsel and Clerk</i>	42,604	9,061
Robert G. Postle <i>Senior Vice President, Worldwide Sales and Marketing</i>	3,339	11,618
Executive Group	85,473	159,094
Non-Executive Director Group	100,750	9,050
Non-Executive Officer Employee Group	242,894	21,948

U.S. Federal Income Tax Consequences Relating to Awards

Incentive Stock Options. An optionee does not realize taxable income for regular tax purposes upon the grant or exercise of an ISO under the 2005 Plan. If no disposition of shares issued to an optionee pursuant to the exercise of an ISO is made by the optionee within two years from the date of grant or within one year from the date of exercise, then (a) upon sale of such shares, any amount realized in excess of the option price (the amount paid for the shares) is taxed to the optionee as

long-term capital gain and any loss sustained will be a long-term capital loss, and (b) no deduction is allowed to the Company for federal income tax purposes. The exercise of ISOs gives rise to an adjustment in computing alternative minimum taxable income that may result in alternative minimum tax liability for the optionee in the year of option exercise. Under current tax laws, the optionee would pay the greater of the regular tax liability or the alternative minimum tax liability. In certain circumstances, optionees may recover all or substantially all of the alternative minimum tax liability created due to the exercise of an ISO in later tax years, including the year of sale of the shares. If shares of Common Stock acquired upon the exercise of an ISO are disposed of before the expiration of the two-year and one-year holding periods described above (a "disqualifying disposition"), then (a) the optionee realizes ordinary income in the year of disposition in an amount equal to the excess (if any) of the fair market value of the shares at exercise (or, if less, the amount realized on a sale of such shares) over the option price thereof, and (b) the Company is entitled to deduct such amount. Any further gain realized is taxed as a short- or long-term capital gain and does not result in any deduction to the Company. A disqualifying disposition in the year of exercise will generally avoid the alternative minimum tax consequences of the exercise of an ISO.

Nonstatutory Stock Options. No income is realized by the optionee at the time an NSO is granted. Upon exercise, (a) ordinary income is realized by the optionee in an amount equal to the difference between the option price and the fair market value of the shares on the date of exercise, and (b) the Company receives a tax deduction for the same amount. Upon disposition of the shares, appreciation or depreciation after the date of exercise is treated as a short- or long-term capital gain or loss and will not result in any further deduction by the Company.

Restricted Stock. Generally, a participant will be taxed at the time the conditions to earning the award are met. The excess of the fair market value of the shares at that time over the amount paid, if any, by the participant for the shares will be treated as ordinary income. The participant may instead elect at the time of grant to be taxed (as ordinary income) on the excess of the then fair market value of the shares over the amount paid, if any, for the shares. In either case, the Company receives a tax deduction for the amount reported as ordinary income to the participant. Upon disposition of the shares, any appreciation or depreciation after the taxable event is treated as a short- or long-term capital gain or loss and will not result in any further deduction by the Company.

Restricted Stock Units. A participant does not realize taxable income upon the grant or vesting of a restricted stock unit as long as proper elections are made, or the units only become payable upon an allowable distribution event or on a specified date. Otherwise, the participant will realize taxable income upon vesting of a restricted stock unit, and may be subject to interest and additional penalties that are applicable to certain forms of nonqualified deferred compensation under Section 409A of the Internal Revenue Code enacted under the American Jobs Creation Act of 2004. Assuming that proper elections are made or that the allowable distribution provisions are followed, when an award is settled the participant will include as ordinary income an amount equal to the fair market value of the shares (or the amount of cash) distributed to settle the award. The Company receives a corresponding tax deduction at the time of settlement. If the award is settled in shares, then any subsequent appreciation or depreciation is treated as short- or long-term capital gain or loss and will not result in any further deduction by the Company.

Internal Revenue Code Section 162(m). United States tax laws generally do not allow publicly held companies to obtain tax deductions for compensation of more than \$1 million paid in any year to any of the chief executive officer and the next four highest paid executive officers (each, a "covered employee") unless the compensation is "performance-based" as defined in the Section 162(m) of the Internal Revenue Code. Stock options and SARs granted under an equity compensation plan are performance-based compensation if (i) stockholders approve a maximum aggregate per person limit on the number of shares that may be granted each year, (ii) any stock options or SARs are granted by a

committee consisting solely of outside directors, and (iii) the stock options or SARs have an exercise price that is not less than the fair value of Common Stock on the date of grant.

The Compensation Committee has designed the 2005 Plan with the intention of satisfying Section 162(m) with respect to stock options and SARs granted to covered employees.

In the case of restricted stock and restricted stock units, Section 162(m) requires that the general business criteria of any performance goals that are established by the Compensation Committee be approved and periodically reapproved by stockholders (generally, every five years) in order for such awards to be considered performance-based and deductible by the employer. Generally, the performance goals must be established before the beginning of the relevant performance period. Furthermore, satisfaction of any performance goals during the relevant performance period must be certified by the Compensation Committee.

The Compensation Committee has approved the following list of business criteria upon which it may establish performance goals for deductible performance-based awards made to covered persons: (1) increases in the price of the Common Stock, (2) market share, (3) sales, (4) revenue, (5) return on equity, assets, or capital, (6) economic profit (economic value added), (7) total shareholder return, (8) costs, (9) expenses, (10) margins, (11) earnings (including EBITDA) or earnings per share, (12) cash flow (including adjusted operating cash flow), (13) customer satisfaction, (14) operating profit, (15) net income, (16) research and development, (17) product releases, (18) manufacturing, or (19) any combination of the foregoing, including without limitation goals based on any of such measures relative to appropriate peer groups or market indices. Performance goals may be particular to a participant or may be based, in whole or in part, on the performance of the division, department, line of business, subsidiary, or other business unit in which the participant works, or on the Company's performance generally. The Compensation Committee has the authority to reduce (but not to increase) the amount payable at any given level of performance to take into account factors that the Compensation Committee may deem relevant.

In connection with the approval of the 2005 Plan, the Company sought stockholder approval of the Compensation Committee's right to develop performance goals based upon the above business criteria for future awards to covered employees. Stockholder approval of these business criteria enables the Company to realize a full income tax deduction for awards under the 2005 Plan where the deduction would otherwise be restricted by Section 162(m) of the Internal Revenue Code.

Tax Withholding. Participants shall be responsible for paying to the Company any taxes required by law to be withheld in respect of awards under the 2005 Plan. The Compensation Committee may permit the payment to be made in shares of Common Stock, including shares retained from the award creating the tax obligation.

Vote Required

Approval of the amendment to the 2005 Plan will require the affirmative vote of a majority of the shares of Common Stock present or represented and entitled to vote at the Meeting. Brokers do not have discretion to vote on this proposal without stockholder instruction. Broker non-votes, if any, will have no effect on the outcome of the vote on this proposal. Abstentions will be counted as present and entitled to vote and accordingly will have the effect of negative votes.

The Board of Directors Recommends a Vote FOR this Proposal No. 2.

PROPOSAL NO. 3

RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS

The Board of Directors has selected Vitale, Caturano & Company, Ltd., independent registered public accountants, to serve as independent registered public accountants for the Company for fiscal year 2009. Beginning the third quarter ended December 31, 2005, Vitale, Caturano & Company, Ltd., served as our independent registered public accountants and also provided certain tax services. Notwithstanding its selection, the Board of Directors, in its discretion, may appoint another independent registered public accounting firm at any time during the year if the Board of Directors believes that such a change would be in the best interests of the Company and its stockholders. Representatives of Vitale, Caturano & Company, Ltd. are expected to be present at the Meeting with the opportunity to make a statement if they desire to do so, and are expected to be available to respond to appropriate questions.

Principal Accountants Fees and Services

Audit Fees

Vitale Caturano & Company, Ltd., in total, billed us an aggregate of approximately \$360,000 in fees for professional services rendered in connection with the audit of our financial statements, and the reviews of the financial statements included in each of our three quarterly reports on Form 10-Q for and during the fiscal year ended March 31, 2008. Vitale Caturano & Company, Ltd., in total, billed us an aggregate of approximately \$375,000 in fees for professional services rendered in connection with the audit of our financial statements, and the reviews of the financial statements included in each of our three quarterly reports on Form 10-Q for and during the fiscal year ended March 31, 2007.

Tax Fees

Vitale Caturano & Company Ltd., in total, billed us an aggregate of approximately \$89,000 for tax compliance, tax advice and tax planning for the fiscal year ended March 31, 2008. Vitale Caturano & Company Ltd., in total, billed us an aggregate of approximately \$20,000 for tax compliance, tax advice and tax planning for the fiscal year ended March 31, 2007.

Other Fees

Vitale Caturano & Company Ltd., in total, billed us an aggregate of approximately \$18,000 for professional services rendered in connection with the audit of our 401(K) plan for the plan year ended December 31, 2007.

Audit Committee Pre-Approval Policies and Procedures

The Audit Committee has established a policy for the pre-approval of audit and non-audit services performed for the Company by the independent registered public accountants. The policy provides for general pre-approval of services and specific case-by-case approval of certain services, such as non-audit services (except for certain de minimus services as defined by applicable SEC regulations). The services that are pre-approved include audit services and audit-related services, such as employee benefit plan audit services, and may also include other services, such as tax related services. The Audit Committee does not delegate its responsibilities concerning pre-approval of services to management. The independent registered public accountants and management are required to periodically report to the Audit Committee regarding the extent of services provided by the independent registered public accountants in accordance with this pre-approval, and the fees for services performed to date.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

During the fiscal year ending March 31, 2008, no pre-approval requirements were waived for services included in the "Audit Fees" and "Tax Fees" captions above pursuant to the limited waiver provisions in applicable rules of the SEC.

Vote Required

Ratification of the appointment of Vitale, Caturano & Company, Ltd., as our independent registered public accountant for fiscal year 2009 requires the affirmative vote of a majority of the votes of the shares of our Common Stock present at the Meeting in person or by proxy and entitled to vote. Unless marked to the contrary, proxies received will be voted "FOR" ratification of the appointment of Vitale, Caturano & Company, Ltd. The ratification of this selection is not required under the By-laws of the Company, but the results of this vote will be considered by the Board when making any future determination regarding Vitale, Caturano & Company, Ltd.

The Board of Directors recommends a vote FOR this Proposal No. 3.

AUDIT COMMITTEE REPORT

The following Report of the Audit Committee does not constitute soliciting material and should not be deemed filed or incorporated by reference into any other Company filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent the Company specifically incorporates this Report.

The Audit Committee members are Dr. Hamilton Helmer (Chairman), Mr. Denis Brown and Dr. Roger Heinisch. The Audit Committee assists the Board of Directors in monitoring the integrity of the Company's financial statements, the Company's compliance with legal requirements and the performance of the Company's independent registered public accountants. The Company's management has primary responsibility for the Company's financial statements as well as maintaining and monitoring a system of appropriate internal controls.

The Audit Committee has reviewed the Company's audited financial statements for the year ended March 31, 2008 and has discussed these financial statements with the Company's management and with Vitale, Caturano & Company, Ltd., the Company's independent registered public accounting firm. The Audit Committee has also reviewed and discussed with the Company's independent registered public accounting firm various communications that the Company's registered public accounting firm is required to provide to the Audit Committee, including the matters required by Statement on Auditing Standards 61 (Communications with Audit Committees). SAS 61 (as codified in AU Section 380 of the Codification of Statements on Auditing Standards) requires the Company's registered public accounting firm to discuss with the Company's Audit Committee, among other things, the following:

auditor's responsibility under generally accepted auditing standards;

methods to account for significant unusual transactions;

audit adjustments that could either individually or in the aggregate have a significant effect on the entity's financial reporting process;

the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;

the process used by management in formulating particularly sensitive accounting estimates and the basis for the auditors' conclusions regarding the reasonableness of those estimates; and

disagreements with management whether or not satisfactorily resolved, about matters that individually or in the aggregate could be significant to the entity's financial statements or the auditor's report.

The Audit Committee has met with the Company's independent registered public accounting firm, with and without management present, to discuss the results of their examinations, the evaluations of the Company's internal controls and the overall quality of the Company's financial reporting. Management has represented to the Audit Committee that the Company's financial statements were prepared in accordance with generally accepted accounting principles.

The Company's independent registered public accounting firm also provided the Audit Committee with the written disclosures and the letter required by Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committees). Independence Standards Board Standard No. 1 requires auditors annually to disclose in writing all relationships that in the auditor's professional opinion may reasonably be thought to bear on independence confirm their perceived independence and engage in a discussion of independence. The Audit Committee has discussed with the Company's independent registered public accounting firm the matters disclosed in such letter and their independence from the Company.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

The Audit Committee reviewed and discussed the requirements of, and the Company's compliance with, Section 404 of the Sarbanes-Oxley Act of 2002, including the Public Company Oversight Board's Auditing Standard No. 2 regarding the audit of internal control over financial accounting.

Based on its discussions with management and the Company's independent registered public accounting firm, and its review of the representations and information provided by management and the independent registered public accounting firm, the Audit Committee recommended to the Company's Board that the audited financial statements be included in the Company's Annual Report on Form 10-K for the year ended March 31, 2008.

Report Submitted By: Hamilton W. Helmer (Chairman), Denis Brown and Roger Heinisch

OTHER MATTERS

Stockholder Proposals for 2009 Annual Meeting

Proposals which stockholders intend to present at the Company's 2009 Annual Meeting of Stockholders and wish to have included in the Company's proxy materials pursuant to Rule 14a-8 promulgated under the Securities Exchange Act of 1934, as amended, must be received by the Company no later than April 14, 2009. To submit a non-Rule 14a-8 proposal for the Company's 2009 Annual Meeting of Stockholders, the proposal must be received at the principal executive offices of the Company, to the attention of the Clerk of the Company, between May 12, 2009 and June 12, 2009. Alternatively, if such meeting is called for a date not within 30 days before or after September 10, 2009, then the proposal must be received on the 10th day following the earlier of (a) the day on which notice of the date of such meeting was mailed and (b) the date the Company publicly disclosed the date of such meeting. If a proponent fails to notify the Company by July 7, 2009 of a non-Rule 14a-8 stockholder proposal that it intends to submit at the Company's 2009 Annual Meeting of Stockholders, the proxy solicited by the Board of Directors with respect to such meeting may grant discretionary authority to the proxies named therein to vote with respect to such matter. The Company suggests that proposals be submitted by Certified Mail, Return Receipt Requested.

The proxy solicited by the Board of Directors with respect to such meeting may grant discretionary authority to the proxies named therein to vote with respect to such matter. The Company suggests that proposals be submitted by Certified Mail, Return Receipt Requested. For each matter proposed for the Annual Meeting, the proponent should provide (a) a brief description of the proposal and the reasons for addressing that proposal at the meeting, (b) the proponent's name and record address, (c) the class and number of shares of stock held by the proponent as of the record date for the meeting, (d) any material interest of the proponent in the proposal and (e) all other information that the proponent would have to include in a proxy statement if the proponent were to solicit proxies for the proposal under Regulation 14A of the Securities Exchange Act of 1934.

Stockholder nominations for directors may be made only after giving timely notice in writing to the Clerk of the Company. In order to be timely given, a stockholder's notice must be delivered to or mailed and received at the principal executive offices of the Company between May 12, 2009 and June 12, 2009. Alternatively, if such meeting is called for a date not within 30 days before or after September 10, 2009, then the notice must be received on the 10th day following the earlier of (a) the day on which notice of the date of such meeting was mailed and (b) the date the Company publicly disclosed the date of such meeting. This stockholder's notice to the Clerk of the Company must state, as to each person whom the stockholder proposes to nominate for election or reelection as a director, (i) the name, age, business address and residence address of the person, (ii) the principal occupation or employment of the person, (iii) the class and number of shares of capital stock of the corporation, if any, which are beneficially owned by the person, (iv) any other information regarding the nominee as would be required to be included in a proxy statement or other filings required to be filed pursuant to

Regulation 14A of the Securities Exchange Act of 1934, and (v) the consent of each nominee to serve as a director of the corporation if so elected.

The stockholder's notice to the Clerk of the Company must also state, as to the stockholder giving the notice, (i) the name and record address of the stockholder, (ii) the class and number of shares of capital stock of the corporation which are beneficially owned by the stockholder as of the record date for the meeting (if such date shall then have been made publicly available) and as of the date of such notice, (iii) a representation that the stockholder intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice, (iv) a representation that the stockholder (and any party on whose behalf such stockholder is acting) is qualified at the time of giving such notice to have such individual serve as the nominee of such stockholder (and any party on whose behalf such stockholder is acting) if such individual is elected, accompanied by copies of any notifications or filings with, or orders or other actions by, and governmental authority which are required in order for such stockholder (and any party on whose behalf such stockholder is acting) to be so qualified, (v) a description of all arrangements or understandings between such stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by such stockholder, and (vi) such other information regarding such stockholder as would be required to be included in a proxy statement or other filings required to be filed pursuant to the Regulation 14A of the Securities Exchange Act of 1934.

The Company may require any proposed nominee to furnish such other information as may reasonably be required by the Company to determine the eligibility of such proposed nominee to serve as director. No person shall be eligible for election as a director unless nominated in accordance with the provisions set forth herein. The Chairman of the Board of Directors or other presiding officer of such meeting may, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the foregoing procedures, and if such officer should so determine, such officer shall so declare to the meeting and the defective nomination shall be disregarded.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires certain persons, including the Company's directors, executive officers and beneficial holders of more than 10% of the Company's Common Stock to file initial reports of beneficial ownership of the Company's securities and reports of changes in beneficial ownership with the Securities and Exchange Commission. For fiscal year 2008, to the Company's knowledge, all Section 16(a) filing requirements applicable to its officers, directors and greater than 10% beneficial owners were complied with.

Incorporation by Reference

To the extent that this Proxy Statement has been or will be specifically incorporated by reference into any filing by the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, the sections of the Proxy Statement entitled Compensation Committee Report, and Audit Committee Report shall not be deemed to be so incorporated, unless specifically otherwise provided in any such filing.

Annual Report on Form 10-K

The Company's Annual Report on Form 10-K for the fiscal year ended March 31, 2008 filed with the SEC, which provides additional information about the Company, is available on the Internet at www.as-e.com and to beneficial owners of the Common Stock without charge upon written request to the Investor Relations Department, American Science and Engineering, Inc., 829 Middlesex Turnpike, Billerica, MA 01821.

Other Proposed Action

The Board of Directors knows of no other matters that are to be presented at the Meeting. If however, any other business should properly come before the Meeting, the persons named in the enclosed proxy intend to vote such proxy upon such matters in accordance with their best judgment.

By Order of the Board of Directors

William F. Grieco
*Senior Vice President, General Counsel and
Clerk*

Appendix A 2005 Equity and Incentive Plan
Appendix B Audit Committee Charter

AMERICAN SCIENCE AND ENGINEERING, INC.

2005 EQUITY AND INCENTIVE PLAN

1. *Purposes of the Plan*

The purposes of the American Science and Engineering, Inc. 2005 Equity and Incentive Plan (the "*Plan*") are (i) to provide long-term incentives and rewards to those employees, officers, directors, and consultants of American Science and Engineering, Inc. (the "*Company*") and its Affiliates (as defined below) who are in a position to contribute to the long-term success and growth of the Company and its Affiliates, (ii) to assist the Company and its Affiliates in attracting and retaining persons with the requisite experience and ability, and (iii) to more closely align the interests of such employees, officers, directors, and consultants with the interests of the Company's stockholders.

2. *Definitions*

"Affiliate" means any business entity in which the Company holds, directly or indirectly, an equity, profits, or voting interest of 30% or more, and includes any Subsidiary.

"Applicable Law" means the applicable requirements relating to the administration of equity compensation plans under Massachusetts state corporate law, federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted, employment laws, and the applicable laws of any foreign jurisdiction where Awards are or will be granted.

"Award" means any Option, Stock Appreciation Right, Restricted Stock, Restricted Stock Unit, Cash Award, or Foreign National Award granted under the Plan. Awards may be granted for services to be rendered or for past services already rendered to the Company or any Affiliate.

"Cash Award" means an Award granted to a Participant pursuant to Section 10(d) of the Plan that is payable in cash and that may be subject to certain terms, conditions, and restrictions.

"Board" means the Board of Directors of the Company.

"Code" means the Internal Revenue Code of 1986, as amended from time to time, or any successor law.

"Committee" means one or more committees each comprised of not less than two members of the Board appointed by the Board to administer the Plan or a specified portion thereof. To the extent that the Board determines it's desirable to qualify Awards granted to Covered Employees under the Plan as "performance-based compensation" within the meaning of Section 162(m) of the Code, then each member of the Committee shall be an "outside director" within the meaning of Section 162(m) of the Code. To the extent that the Board determines it desirable to qualify Awards granted by the Committee to a Reporting Person under the Plan as exempt under Rule 16b-3(d)(1) of the Exchange Act, then each member of the Committee shall be a "non-employee director" within the meaning of Rule 16b-3.

"Common Stock" or "Stock" means the common stock of the Company.

"Company" means American Science and Engineering, Inc., or any successor corporation.

"Covered Employee" means a "covered employee" within the meaning of Section 162(m) of the Code.

"Designated Beneficiary" means the beneficiary designated by a Participant, in a manner determined by the Committee, to receive amounts due or exercise rights of the Participant in the event

of the Participant's death. In the absence of an effective designation by a Participant, "Designated Beneficiary" means the Participant's estate.

"Disability" means a total and permanent disability as provided in the long-term disability plan or policy maintained by the Company or if applicable, most recently maintained, by the Company or if applicable, an Affiliate, for the Participant, whether or not such Participant actually receives disability benefits under such plan or policy. If no long-term disability plan or policy was ever maintained on behalf of the Participant or if the determination of disability relates to an Incentive Stock Option or SAR issued in tandem with an Incentive Stock Option, Disability means permanent and total disability as defined in Section 22(e)(3) of the Code. In the event of a dispute, the determination whether a Participant is disabled will be made by the Committee and may be supported by the advice of a physician competent in the area to which such disability relates.

"Exchange Act" means the Securities Exchange Act of 1934, as amended from time to time, or any successor law.

"Fair Market Value" means, with respect to Common Stock or any other property, the fair market value of such property as determined by the Committee in good faith or in the manner established by the Committee from time to time.

"Foreign National Award" means an Award granted pursuant to Section 10(f) to a Participant who is a foreign national or employed or performing services outside of the United States.

"Grant Date" means the first date on which all necessary corporate action has been taken to approve the grant of the Award as provided in the Plan, or such later date as is determined and specified as part of that authorization process. Notice of the grant shall be provided to the Participant within a reasonable time after the grant.

"Grant Agreement" means the documentation evidencing an Award as provided in Section 10(b).

"Incentive Stock Option" means an Option intended to qualify as an incentive stock option and which meets the requirements of Section 422 of the Code.

"Nonstatutory Stock Option" means an Option that is not an Incentive Stock Option.

"Option" means a right to acquire shares of Company Stock upon the payment of an exercise price that is granted in accordance with Section 6 of the Plan. An Option may be either an Incentive Stock Option or a Nonstatutory Stock Option.

"Participant" means a person selected by the Committee to receive an Award under the Plan.

"Performance Goals" means with respect to any Performance Period, one or more performance goals based on one or more of the following objective criteria established by the Committee prior to the beginning of such Performance Period or within such period after the beginning of the Performance Period as shall meet the requirements to be considered "pre-established objective performance goals" for purposes of the regulations issued under Section 162(m) of the Code: (i) increases in the price of the Common Stock, (ii) market share, (iii) sales, (iv) revenue, (v) return on equity, assets, or capital, (vi) economic profit (economic value added), (vii) total shareholder return, (viii) costs, (ix) expenses, (x) margins, (xi) earnings (including EBITDA) or earnings per share, (xii) cash flow (including adjusted operating cash flow), (xiii) customer satisfaction, (xiv) operating profit, (xv) net income, (xvi) research and development, (xvii) product releases, (xviii) manufacturing, or (xix) any combination of the foregoing, including without limitation, goals based on any of such measures relative to appropriate peer groups or market indices. Such Performance Goals may be particular to a Participant or may be based, in whole or in part, on the performance of the division, department, line of business, subsidiary, or other business unit, whether or not legally constituted, in which the Participant works or on the performance of the Company generally.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

"Performance Period" means the period of service designated by the Committee applicable to an Award subject to Section 10(I) during which the Performance Goals will be measured.

"Reporting Person" means a person subject to Section 16 of the Exchange Act.

"Restricted Stock" means shares of Common Stock granted to a Participant pursuant to Section 8 of the Plan that may be subject to certain terms, conditions, and restrictions.

"Restricted Stock Unit" means the right granted to a Participant pursuant to Section 9 of the Plan to receive shares of Common Stock (or the equivalent value in cash or other property if the Committee so provides) in the future that may be subject to certain terms, conditions, and restrictions.

"Service Provider" means an employee, officer, director or consultant of the Company or any of its Affiliates.

"Stock Appreciation Right" or "SAR" means a right to acquire cash or shares of Common Stock granted in accordance with Section 7 of the Plan having a value equal to the difference between the Fair Market Value on the date of exercise over the exercise price set forth in the Grant Agreement multiplied by the number of shares of Common Stock with respect to which the SAR is being exercised.

"Subsidiary" means any subsidiary corporation as defined in Section 424(f) of the Code.

"Termination Date" means (i) in the case of an employee, the date that the Committee determines that the employee-employer relationship between the Company or Affiliate and such person ceased for any reason, (ii) in the case of a consultant or non-employee officer, the date that the Committee determines that the service relationship between the Company or Affiliate and such person ceased for any reason, and (iii) in the case of a director, the date that the Committee determines that such person's service on the Board ceased for any reason.

3. Administration

The Plan shall be administered by the Committee. Subject to and consistent with the provisions of the Plan, the Committee shall have the authority and discretion to: (i) determine which eligible employees, officers, directors, and consultants will receive Awards, (ii) determine the number of shares of Common Stock, cash, or other consideration to be covered by each Award, (iii) determine the terms and conditions of any Award (including Fair Market Value, the exercise price, the vesting schedule, the term of the Award, and the period following termination from employment or service during which an Award may be exercised), (iv) approve forms of Award agreements and other documentation for use under the Plan, (v) adopt, alter, and repeal administrative rules, guidelines, and practices governing the operation of the Plan and the Committee, (vi) interpret the provisions of the Plan and any Award documentation and remedy any ambiguities, omissions, or inconsistencies therein, (vii) to modify or amend Awards, or grant waivers of Plan or Award conditions, and (viii) make all other determinations necessary or advisable for the administration of the Plan. A majority of the members of the Committee shall constitute a quorum. The Committee's decisions, determinations, and interpretations shall be final and binding on all persons having an interest in any Award. To the extent permitted by Applicable Law, the Committee may delegate to one or more executive officers of the Company the power to make Awards to Participants who are not Reporting Persons and all determinations under the Plan with respect thereto, provided that the Committee shall fix the maximum amount of such Awards for all such Participants and a maximum for any one Participant, and such other features of the Awards as required by Applicable Law.

4. Eligibility

Incentive Stock Options may be granted only to employees (including officers and directors who are also employees) of the Company or a Subsidiary. All other Awards may be granted to employees, officers, directors, and consultants of the Company or any Affiliate.

5. Stock Available for Awards

(a) **Amount.** Subject to adjustment under Section 5(c), the aggregate number of shares of Common Stock that may be issued pursuant to Awards granted under the Plan shall be 750,000 shares. Subject to adjustment under Section 5(c), up to 750,000 shares of Common Stock may be issued upon exercise of Incentive Stock Options granted under the Plan. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares, or treasury shares, or shares purchased on the open market. At all times the Company will reserve and keep available a sufficient number of shares to satisfy the number of shares available for issuance under the Plan.

(b) **Share Counting.** If an Award granted under the Plan is canceled, terminates, expires, is forfeited, lapses, or is settled in cash, then the shares subject to such Award (to the extent of such cancellation, termination, expiration, forfeiture, lapse, or settlement) shall again be available for issuance pursuant to Awards granted under the Plan. For purposes of Section 5(a), any shares granted as Options or Stock Appreciation Rights under the Plan shall be counted against this limit as one share for every share subject to the Award. Any shares granted as Awards other than Options or Stock Appreciation Rights shall be counted against the limit set forth in Section 5(a) as 1.5 shares for every one share subject to the Award. Any shares tendered in payment of an Option's exercise price (whether by attestation or actual delivery), any shares tendered or withheld to satisfy a tax withholding on an Award, and any shares repurchased by the Company using Option proceeds shall not be added back, replenish, or increase the aggregate Plan share limit set forth in Section 5(a).

(c) **Adjustment.** In the event that the Committee determines that any stock dividend, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, exchange of shares, or other transaction affects the Common Stock such that an adjustment is required in order to preserve the benefits intended to be provided by the Plan, then the Committee (subject in the case of Incentive Stock Options to any limitation required under the Code) shall equitably adjust any or all of (i) the number and class of shares that may be issued in respect of Awards under the Plan, (ii) the number and class of shares subject to outstanding Awards, (iii) the number and class of shares subject to the limit on individual grants under Section 5(d) of the Plan, and (iv) the exercise price with respect to any of the foregoing, and if considered appropriate, the Committee may make provision for a cash payment with respect to an outstanding Award, provided that the number of shares subject to any Award shall always be a whole number.

(d) **Limit on Individual Grants.** The maximum number of shares of Common Stock subject to all Awards that may be granted under this Plan to any Participant in the aggregate in any fiscal year of the Company shall not exceed 250,000 shares, subject to adjustment under Section 5(b). Notwithstanding the foregoing, during the fiscal year in which a Participant first becomes an employee of the Company or an Affiliate, the Participant may be granted Awards covering an additional 250,000 shares of Common Stock, subject to adjustment under Section 5(b). With respect to any Award settled in cash that is intended to satisfy the requirements for "performance-based compensation" (within the meaning of Section 162(m)(4)(C) of the Code), no more than \$2,500,000 may be paid to any one individual with respect to each year of a Performance Period.

6. Stock Options

(a) **Grant of Options.** Subject to the provisions of the Plan, the Committee may grant Incentive Stock Options or Nonstatutory Stock Options to a Participant.

(b) Terms and Conditions. The Committee shall determine the number of shares of Common Stock subject to each Option and the exercise price therefor, which shall not be less than 100% of the Fair Market Value of the Common Stock on the Grant Date. Each Option shall be exercisable at such times and subject to such terms and conditions as the Committee may specify in the Grant Agreement or thereafter; provided that (i) no Option shall be exercisable after the expiration of ten years from the Option's Grant Date, and (ii) no Option may be granted with a reload feature which provides for an automatic grant of additional or replacement options upon the exercise of an Option. A Participant may exercise an Option by following such procedures as the Committee or its designees may specify from time to time. The Committee may impose such conditions with respect to the exercise of Options, including conditions relating to Applicable Laws, as it considers necessary or advisable.

(c) Payment. No shares shall be delivered pursuant to any exercise of an Option until payment in full of the exercise price therefor is received by the Company. Except as otherwise provided by the Committee, such payment may be made in whole or in part in or pursuant to any of the following methods: (i) cash, (ii) by actual delivery or attestation of ownership of shares of Common Stock owned by the Participant, including vested Restricted Stock, (iii) by retaining shares of Common Stock otherwise issuable pursuant to the Option, (iv) for consideration received by the Company under a broker-assisted cashless exercise program acceptable to the Company, or (v) for such other lawful consideration as the Committee may determine.

(d) Exercise Period. When a Participant's status as a Service Provider terminates, the Participant's Option may be exercised within the period of time specified in the Grant Agreement to the extent that the Option is vested on the Participant's Termination Date. In the absence of a specific period of time set forth in the Grant Agreement, an Option shall remain exercisable for three (3) months following the date the Participant ceases to be a Service Provider, but in no event shall the Option be exercisable after the expiration of the term of such Option. If a Participant's status as a Service Provider terminates from death or Disability or the Participant dies within three (3) months after his Termination Date, then (unless provided otherwise in the Grant Agreement) the Option shall remain exercisable for twelve (12) months following the date the Participant ceases to be a Service Provider, but in no event shall the Option be exercisable after the expiration of the term of such Option. In no event may the Committee provide in a Grant Agreement that the period of time for exercising an Option following a Participant's Termination Date shall exceed three (3) years.

(e) Incentive Stock Option Rules. In addition to the limitations and conditions that apply generally to Options, the following provisions shall apply to any Incentive Stock Option. The Committee may grant Incentive Stock Options only to persons who are employees of the Company or a Subsidiary as of the Grant Date. The aggregate Fair Market Value (determined as of the Grant Date) of all shares with respect to which Incentive Stock Options are exercisable for the first time by a Participant during any calendar year (under the Plan or any other incentive stock option plan of the Company or any Subsidiary) shall not exceed \$100,000. If the Fair Market Value of shares on the Grant Date with respect to which Incentive Stock Options are exercisable for the first time by a Participant during any calendar year exceeds \$100,000, the Options for the first \$100,000 worth of shares to become exercisable in that calendar year will be Incentive Stock Options, and the Options for the shares with a Fair Market Value in excess of \$100,000 that become exercisable in that calendar year will be Nonstatutory Stock Options. No Incentive Stock Option shall be granted to any individual who, at the Grant Date, owns stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Subsidiary unless the exercise price per share of such Option is at least 110% of the Fair Market Value per share at the Grant Date and the Option expires no later than five (5) years after the Grant Date. If a Participant sells or otherwise disposes of any shares acquired pursuant to the exercise of an Incentive Stock Option on or before the later of (i) the date two (2) years after the Grant Date, and (ii) the date one year after the exercise of the Incentive Stock

Option, the Company may require the Participant to immediately notify the Company in writing of such disposition.

7. Stock Appreciation Rights

(a) Grant of SARs. Subject to the provisions of the Plan, the Committee may grant SARs to a Participant in tandem with an Option (at or after the award of the Option), or alone and unrelated to an Option. SARs granted in tandem with an Option shall terminate to the extent that the related Option is exercised, and the related Option shall terminate to the extent that the tandem SARs are exercised.

(b) Terms and Conditions. The Committee shall determine the number of shares of Common Stock subject to each SAR and the exercise price therefore. A SAR granted in tandem with an Option shall have an exercise price not less than the exercise price of the related Option. A SAR granted alone and unrelated to an Option may not have an exercise price less than 100% of the Fair Market Value of the Common Stock on of the Grant Date. Each SAR shall be exercisable at such times and subject to such terms and conditions as the Committee may specify in the Grant Agreement or thereafter; provided that no SAR shall be exercisable after the expiration of ten years from the SAR's Grant Date. A Participant may exercise a SAR by following such procedures as the Committee or its designees may specify from time to time. The Committee may impose such conditions with respect to the exercise of SARs, including conditions relating to Applicable Laws, as it considers necessary or advisable.

(c) Exercise Period. When a Participant's status as a Service Provider terminates, the Participant's SAR may be exercised within the period of time specified in the Grant Agreement to the extent that the SAR is vested on the Participant's Termination Date. In the absence of a specific period of time set forth in the Grant Agreement, a SAR shall remain exercisable for three (3) months following the date the Participant ceases to be a Service Provider, but in no event shall the SAR be exercisable after the expiration of the term of such SAR. If a Participant's status as a Service Provider terminates from death or Disability or the Participant dies within three (3) months after his Termination Date, then (unless provided otherwise in the Grant Agreement) the SAR shall remain exercisable for twelve (12) months following the date the Participant ceases to be a Service Provider, but in no event shall the SAR be exercisable after the expiration of the term of such SAR. In no event may the Committee provide in the Grant Agreement that the period of time for exercising a SAR following a Participant's Termination Date shall exceed three (3) years.

8. Restricted Stock

(a) Grant of Restricted Stock. Subject to the provisions of the Plan, the Committee may grant Restricted Stock to a Participant.

(b) Terms and Conditions. The Committee shall determine the number of shares of Common Stock subject to each Restricted Stock Award and the purchase price (if any) for each share. Shares of Restricted Stock may be issued for no cash consideration, or such minimum consideration as may be required by Applicable Law. The Committee may grant shares of Common Stock subject to such other terms, conditions, and restrictions (including forfeiture provisions and conditions relating to Applicable Laws) as it considers necessary or advisable.

(c) Restrictions. Shares of Restricted Stock may not be sold, assigned, transferred, pledged or otherwise encumbered, except as permitted by the Committee, during the restricted period. Shares of Restricted Stock shall be evidenced in such manner as the Committee may determine, including book-entry registration. Any physical certificates issued in respect of shares of Restricted Stock shall be registered in the name of the Participant bearing an appropriate legend referring to the terms, conditions, and restrictions applicable to such Restricted Stock and unless otherwise determined by the

Committee, deposited by the Participant, together with a stock power endorsed in blank, with the Company or a designated custodian or escrow agent. At the expiration of the restricted period, the Company shall deliver any such certificates to the Participant or if the Participant has died, to the Participant's Designated Beneficiary.

9. Restricted Stock Units

(a) **Restricted Stock Units.** Subject to the provisions of the Plan, the Committee may grant Restricted Stock Units to a Participant.

(b) **Terms and Conditions.** The Committee shall determine the number of shares of Common Stock subject to each Restricted Stock Unit Award and the purchase price (if any) for each unit. Restricted Stock Units may be issued for no cash consideration, or such minimum consideration as may be required by Applicable Law. The Committee may grant Restricted Stock Units subject to such other terms, conditions, and restrictions (including forfeiture provisions and conditions relating to Applicable Laws) as it considers necessary or advisable.

(c) **Unfunded Obligation.** A Restricted Stock Unit Award shall constitute an unfunded and unsecured obligation of the Company, and shall be settled in shares of Common Stock or cash, as determined by the Committee at the time of grant or thereafter. Each unit shall represent the equivalent of one share of Common Stock.

10. General Provisions Applicable to Awards

(a) **Transferability.** Except as otherwise provided in this Section 10(a), an Award (i) shall not be transferable other than as designated by the Participant by will or by the laws of descent and distribution, and (ii) may be exercised during the Participant's lifetime only by the Participant or by the Participant's guardian or legal representative. In the discretion of the Committee, any Award may be transferable upon such terms and conditions and to such extent as the Committee determines at or after grant, provided that Incentive Stock Options may be transferable only to the extent permitted by the Code.

(b) **Grant Agreement.** Each Award under the Plan shall be evidenced by a written or electronic grant agreement delivered to the Participant specifying the terms and conditions thereof and containing such other terms and conditions not inconsistent with the provisions of the Plan or Applicable Laws as the Committee considers necessary or advisable to achieve the purposes of the Plan.

(c) **Committee Discretion.** Each type of Award may be made alone, in addition to or in relation to any other Award. The terms of each type of Award need not be identical, and the Committee need not treat Participants uniformly. In addition to the authority granted to the Committee in Section 10(l) to make Awards to Covered Employees which qualify as "performance-based compensation" for purposes of Section 162(m) of the Code, the Company may grant Awards subject to such performance conditions (including performance-based vesting) as it shall determine in its discretion. Except as otherwise provided by the Plan or a particular Award, any determination with respect to an Award may be made by the Committee at the time of grant or at any time thereafter.

(d) **Dividends and Cash Awards.** In the discretion of the Committee, any Award under the Plan may provide the Participant with dividends or dividend equivalents payable currently or deferred, with or without interest. The Committee may also make cash payments under the Plan in lieu of or in addition to an Award. Such Cash Awards may be made subject to such terms, conditions, and restrictions as the Committee considers necessary or advisable.

(e) **Termination of Employment or Service.** Whether military service, government service, or other leave of absence shall constitute a termination of employment or service, and whether the vesting of an Award shall cease, be suspended, or continue during such leave of absence, shall be determined in each

case by the Committee in its direction. Except as otherwise provided by the Committee, a Participant's employment or service shall not be deemed to terminate upon the transfer of employment or service between the Company and an Affiliate. Except as otherwise provided by the Committee, a Participant's employment or service shall be deemed to terminate, and further vesting of any Award shall cease, in the case of any sale, spin-off, or other disposition of the Participant's employer or substantially all of its assets. To the extent that this Section 10(e) or action by the Committee results in an Incentive Stock Option being exercised beyond the date that a Participant is deemed to be an employee of the Company or a Subsidiary for purposes of Section 424 of the Code, the Option shall be deemed to be a Nonstatutory Stock Option.

(f) Change in Control. In order to preserve a Participant's rights under an Award in the event of a change in control of the Company as defined by the Committee (a "Change in Control"), the Committee in its discretion may, at the time an Award is made or at any time thereafter, take one or more of the following actions: (i) provide for the acceleration of any time period relating to the exercise or payment of the Award, (ii) provide for payment to the Participant of cash or other property with a Fair Market Value equal to the amount that would have been received upon the exercise or payment of the Award had the Award been exercised or paid upon the Change in Control, (iii) adjust the terms of the Award in a manner determined by the Committee to reflect the Change in Control, (iv) cause the Award to be assumed, or new rights substituted therefor, by another entity, or (v) make such other provision as the Committee may consider equitable to Participants and in the best interests of the Company.

(g) Loans. The Committee may not authorize the making of loans to Participants in connection with the grant or exercise of any Award under the Plan.

(h) Withholding Taxes. A Participant shall pay to the Company, or make provision satisfactory to the Committee for payment of, any taxes required by law to be withheld in respect of Awards under the Plan no later than the date of the event creating the tax liability. In the Committee's discretion, such tax obligations may be paid in whole or in part in shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value on the date of delivery. The Company and its Affiliates may, to the extent permitted by Applicable Law, deduct any such tax obligations from any payment of any kind otherwise due to the Participant.

(i) Foreign National Awards. Notwithstanding anything to the contrary contained in this Plan, Foreign National Awards may be made to Participants on such terms and conditions different from those specified in the Plan as the Committee considers necessary or advisable to achieve the purposes of the Plan or to comply with Applicable Law.

(j) Amendment of Award. Except as provided in Section 10(k), the Committee may amend, modify, or terminate any outstanding Award, including substituting therefor another Award of the same or a different type, changing the date of exercise or realization and converting an Incentive Stock Option to a Nonstatutory Stock Option, provided that the Participant's consent to such action shall be required unless (i) the Committee determines that the action, taking into account any related action, would not materially and adversely affect the Participant, or (ii) the action is permitted by the terms of the Plan.

(k) No Repricing of Options. Notwithstanding anything to the contrary in the Plan, the Company shall not engage in any repricing of Options or SARs granted under this Plan without further stockholder approval. For this purpose, the term "repricing" shall mean any of the following or other action that has the same effect: (i) lowering the exercise price of an Option or a SAR after it is granted, (ii) any other action that is treated as a repricing under generally accepted accounting principles, or (iii) canceling an Option or a SAR at a time when its exercise price exceeds the fair market value of the underlying stock in exchange for another Option, SAR, Restricted Stock, or other equity of the Company, unless the cancellation and exchange occurs in connection with a merger,

acquisition, spin-off, or similar corporate transaction (including any adjustment described in Section 5(c)).

(l) Code Section 162(m) Provisions. If the Committee determines at the time an Award is granted to a Participant that such Participant is, or may be as of the end of the tax year for which the Company would claim a tax deduction in connection with such Award, a Covered Employee, then the Committee may provide that the Participant's right to receive cash, shares, or other property pursuant to such Award shall be subject to the satisfaction of Performance Goals during a Performance Period. Prior to the payment of any Award subject to this Section 10(l), the Committee shall certify in writing that the Performance Goals and other material terms applicable to such Award were satisfied. Notwithstanding the attainment of Performance Goals by a Covered Employee, the Committee shall have the right to reduce (but not to increase) the amount payable at a given level of performance to take into account additional factors that the Committee may deem relevant. The Committee shall have the power to impose such other restrictions on Awards subject to this Section 10(l) as it may deem necessary or appropriate to ensure that such Awards satisfy all requirements for "performance-based compensation" within the meaning of Section 162(m) of the Code.

(m) Minimum Vesting Requirements for Full Value Awards. Each Restricted Stock or Restricted Stock Unit Award granted under the Plan (each, a "Full Value Award") shall vest in accordance with a schedule that does not permit such Full Value Award to vest in full prior to the third anniversary of the Grant Date of the Award. This minimum vesting requirement shall not, however, preclude the Committee from exercising its discretion to (i) accelerate the vesting of any Full Value Award upon retirement, termination of employment by the Company, death or Disability, (ii) accelerate the vesting of any Full Value Award in accordance with Section 10(f), (iii) establish a shorter vesting schedule for any Full Value Award granted to a consultant, director, or newly-hired employee, (iv) establish a shorter vesting schedule for any Full Value Award that is granted in exchange for or in lieu of the right to receive the payment of an equivalent amount of salary, bonus, directors' fees, or other cash compensation, (v) establish a shorter performance-based vesting schedule in accordance with Section 10(c) or Section 10(l) (but in each case of not less than one year), or (vi) vest up to 1,000 shares per year for each Participant; provided, however, the total number of Full Value Awards granted under clauses (iii) and (vi) above shall not exceed 75,000 shares in the aggregate (subject to adjustment in accordance with Section 5(c)).

(n) Limitation Following a Hardship Distribution. To the extent required to comply with Treasury Regulation Section 1.401(k)-1(d)(2)(iv)(B)(4), or any amendment or successor thereto, a Participant's "elective and employee contributions" (within the meaning of such Treasury Regulation) under the Plan shall be suspended for a period of twelve months following such Participant's receipt of a hardship distribution made in reliance on such Treasury Regulation from any plan containing a cash or deferred arrangement under Section 401(k) of the Code maintained by the Company or a related party within the provisions of Section 414 of the Code.

11. Miscellaneous

(a) No Right To Employment. No person shall have any claim or right to be granted an Award. Neither the Plan nor any Award hereunder shall be deemed to give any employee the right to continued employment or service or to limit the right of the Company to discharge any Participant at any time.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed under the Plan until he or she becomes the holder thereof. A Participant to whom Common Stock is awarded shall be considered the holder of the Stock at the time of the Award except as otherwise provided in the Grant Agreement.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

(c) **Effective Date.** Subject to the approval of the stockholders of the Company, the Plan shall be effective on September 15, 2005.

(d) **Amendment and Term of Plan.** The Board may amend, suspend, or terminate the Plan or any portion thereof at any time, subject to such stockholder approval as the Board determines to be necessary or advisable to comply with any tax or regulatory requirement, provided, however, that the Board may not without stockholder approval materially amend the Plan (within the meaning of applicable exchange listing requirements) to materially increase the number of shares of Common Stock that may be issued under the Plan, materially increase benefits to Participants, materially expand the class of Participants eligible to participate in the Plan, or expand the types of Awards provided under the Plan. Unless terminated earlier by the Board, or extended by subsequent approval of the Company's stockholders, the term of the Plan shall expire on September 15, 2015, and no further Awards shall be made thereafter. The termination of the Plan on such date shall not affect the validity of any Award outstanding on the date of termination.

(e) **Governing Law.** The provisions of the Plan shall be governed by and interpreted in accordance with the laws of Massachusetts.

(f) **Indemnification.** Neither the Board nor the Committee, nor any members of either, nor any employees or officers of the Company or any Affiliate, shall be liable for any act, omission, interpretation, construction, or determination made in good faith in connection with their responsibilities under the Plan, and the Company hereby agrees to indemnify the members of the Board, the members of the Committee, and the employees and officers of the Company or any Affiliate administering the Plan, in respect of any claim, loss, damage, or expense (including reasonable fees of legal counsel) arising from any such act, omission, interpretation, construction, or determination to the fullest extent permitted by Applicable Law.

This Plan was approved by the Board of Directors on July 20, 2005.

This Plan was approved by the Company's stockholders on September 15, 2005.

AMERICAN SCIENCE AND ENGINEERING, INC.
AUDIT COMMITTEE OF THE BOARD OF DIRECTORS CHARTER
JUNE 8, 2000
Amended and restated April 24, 2003

I) MISSION OF COMMITTEE

The primary mission of the Audit Committee (the "Committee") of the Board of Directors "Board") of American Science and Engineering, Inc. (the "Company") is to provide oversight of the accounting functions, internal controls and audit processes of the Company and its subsidiaries and the Company's financial statements. The Committee and the Board have the ultimate authority and responsibility to select, evaluate and, where appropriate, replace the Company's independent auditors.

II) MEMBERSHIP AND INDEPENDENCE OF COMMITTEE

The Committee shall consist of not less than three independent members, who shall be appointed by the Board. The Board shall select one member of the Committee to serve as the Chairman. Each member of the Committee shall be a person who qualifies for membership under the then current listing requirements of the self-regulatory agency on which the Company's common stock is traded as well as the rules of the Securities and Exchange Commission (the "Commission"). Currently, these requirements provide that members of the Committee must be able to read and understand fundamental financial statements or will become able to do so within a reasonable period of time after his or her appointment to the Committee and at least one member of the Committee shall have accounting or related financial management experience. No member of the Committee shall be employed or otherwise affiliated with the Company's independent auditors. In addition, at least one member must have accounting or related financial management expertise. The Company will disclose in its periodic reports filed pursuant to Sections 13(a) or 15(d) of the Exchange Act whether or not (and if not, why not) the Audit Committee is comprised of at least one member who is a "financial expert" as defined by the rules of the Commission promulgated under the Sarbanes-Oxley Act of 2002.

If a Committee member faces a potential or actual conflict of interest with respect to a matter before the Committee, that Committee member shall be responsible for alerting the Committee Chairman, and in the case where the Committee Chairman faces a potential or actual conflict of interest, the Committee Chairman shall advise the Chairman of the Board. In the event that the Committee Chairman, or the Chairman of the Board, concurs that a potential or actual conflict of interest exists, an independent substitute Director shall be appointed as a Committee member until the matter raising the conflict is resolved.

III) GENERAL RESPONSIBILITIES OF COMMITTEE

A

The Committee will meet at least quarterly each year, or more frequently as circumstances dictate or as necessary to meet its responsibilities. The Committee chairman is authorized to convene a Committee meeting whenever he or she deems it necessary. A Committee member should not vote on any matter in which he or she is not independent. The Committee may ask members of management or others to attend the meeting and is authorized to obtain all pertinent information from management.

B

The Committee will report Committee actions to the Board.

C

The Committee will provide an open avenue of communication between the independent auditor and the Board.

D

The Committee will review and evaluate the Company's risk management policies in light of the Company's business strategy, capital strength, and overall risk tolerance.

E

The Committee will comply with all applicable laws, the Company's charter and its bylaws.

F

The Committee will review this Charter annually and assess its adequacy.

G

The Committee shall have the authority and the Company shall provide the necessary funding for the Committee to retain special legal, accounting or other consultants to advise the Committee.

H

The Committee may request any officer or employee of the Company or the Company's outside counsel or independent accountant to attend a meeting of the Committee or to meet with any members of, or consultants to, the Committee without consent of management or the Board.

I

The Committee's function is one of oversight and review, and it is not expected to audit the Company, to define the scope of the audit, to control the Company's accounting practices, or to define the standards to be used in preparation of the Company's financial statements.

IV) RESPONSIBILITY FOR ENGAGING INDEPENDENT AUDITORS; INDEPENDENCE OF AUDITORS

A

The Committee shall be directly responsible for the appointment, compensation, oversight of the work, evaluation and termination of the Company's independent auditors (including resolving all disagreements between management and the auditor regarding financial reporting) for the purpose of preparing and issuing an audit report and related work.

B

The Committee will preapprove all non-audit services to be provided to the Company by the independent auditors, except for certain de minimus services as defined by the Sarbanes-Oxley Act of 2002.

C

The Committee will confirm that the Company's independent auditors are accountable to the Board and the Committee.

D

The Committee will ensure that the independent auditors deliver to the Committee a formal written statement delineating all relationships between the independent auditors and the company, as required by Independence Standards Board Standard No. 1. The Committee also will actively discuss with the auditors any disclosed relationships or services that may impact the objectivity and independence of the independent auditors and in response to the independent auditor's disclosure take, or recommend that the Board take, appropriate action to ensure/oversee the independent auditor's independence.

V) RESPONSIBILITIES FOR REVIEWING THE ANNUAL EXTERNAL AUDIT PLAN, THE RESULTS OF THE AUDIT AND THE QUARTERLY AND ANNUAL FINANCIAL STATEMENTS.

A

The Committee will review with the independent auditors the plan and scope of their audit, its status during the year, the results when completed, the required communications under Statements of Auditing Standards No. 61, their report opinion and any recommendations they may have for improving or changing the audit and the control environment, as well as management's response thereto.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

B

The Committee will review the following with the independent auditor:

1. The adequacy of the Company's internal controls, including information system controls and security including management's internal control report prepared in accordance with rules promulgated by the Commission pursuant to Section 404 of the Sarbanes-Oxley Act.
2. Significant findings and recommendations made by the independent auditor, together with management's responses.
3. Significant changes in accounting principles and financial statements proposed by the independent auditors.

C

Shortly after the annual audit of the Company's financial statements is complete, the Committee will review the following with management and the independent auditor:

1. The Company's annual financial statements and footnotes.
2. The independent auditor's audit of and report on the financial statements.
3. The auditor's qualitative judgments about the appropriateness of Company's methods of accounting and financial disclosures and the level of conservatism of the accounting methods.
4. Any significant disputes with management during the course of the audit.

D

The Committee will review, prior to publication, the Company's filing on Form 10-K.

E

The Committee will review the Company's interim financial statements with management and the independent auditor before such reports are released to the public or filed with the Securities and Exchange Commission or other regulators.

VI) COMPLAINTS

A

The Committee shall establish procedures to facilitate:

1. the receipt, retention and treatment of complaints received by the Company from third parties regarding accounting, internal accounting controls, or auditing matters; and
2. the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.

VII) COMMITTEE REPORT TO STOCKHOLDERS

A

The Committee will report to stockholders in Company's proxy statement for its annual meeting whether the Committee has satisfied its responsibilities under this Charter, which report shall be in compliance with Rule 306 of Regulation S-K, as amended from time to time.

AMERICAN SCIENCE AND ENGINEERING, INC.

ANNUAL MEETING OF STOCKHOLDERS

September 11, 2008

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned hereby appoints Kenneth J. Galaznik and William F. Grieco, or either of them, with full power of substitution, attorneys and proxies to represent the undersigned at the Annual Meeting of Stockholders ("Meeting") of American Science and Engineering, Inc. ("Company") to be held Thursday, September 11, 2008 at Doubletree Hotel Boston-Bedford Glen, 44 Middlesex Turnpike, Bedford, Massachusetts at 8:30 a.m. and at any adjournments thereof, to vote in the name and place of the undersigned as designated below, with all powers which the undersigned would possess if personally present, all of the stock of the Company standing in the name of the undersigned on the books of the Company, on all matters set forth in the Notice of the Meeting and Proxy Statement, receipt of which is acknowledged, and upon such other and further business as may properly come before the Meeting. All proxies previously given by the undersigned in respect of the Meeting are hereby revoked.

WHEN PROPERLY EXECUTED, THIS PROXY WILL BE VOTED AS INSTRUCTED BY THE UNDERSIGNED. IF NO CHOICE IS SPECIFIED, THIS PROXY WILL BE VOTED **FOR** THE ELECTION OF ALL NOMINEES FOR DIRECTORS LISTED ON THE REVERSE SIDE, **FOR** THE INCREASE IN NUMBER OF SHARES AVAILABLE TO BE ISSUED UNDER THE 2005 EQUITY AND INCENTIVE PLAN **FOR** THE RATIFICATION OF THE SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS AND IN THE DISCRETION OF THE NAMED PROXIES ON ANY OTHER MATTERS THAT MAY PROPERLY COME BEFORE THE MEETING AND ANY ADJOURNMENTS OF THE MEETING.

(Continued and to be signed on the reverse side)

ANNUAL MEETING OF STOCKHOLDERS

AMERICAN SCIENCE AND ENGINEERING, INC.

September 11, 2008

Please date, sign and mail your proxy card in the envelope provided as soon as possible.

V Please detach along perforated line and mail in the envelope provided V

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF DIRECTORS AND "FOR" PROPOSALS 2 AND 3.

1. ELECTION OF DIRECTORS:

To vote

- FOR ALL NOMINEES
- WITHHOLD AUTHORITY
- FOR ALL EXCEPT (Write the withheld nominee's name in the space provided below)

NOMINEES:

- Anthony R. Fabiano
- Denis R. Brown
- Roger P. Heinisch
- Hamilton W. Helmer
- Ernest J. Moniz
- Mark Thompson
- Carl W. Vogt

2. TO INCREASE THE NUMBER OF SHARES AUTHORIZED TO BE ISSUED UNDER THE 2005 EQUITY AND INCENTIVE PLAN	FOR	AGAINST	ABSTAIN
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS	FOR	AGAINST	ABSTAIN
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To ratify the selection of Vitale Caturano & Company, Ltd. the Company's independent registered public accountants for the fiscal year ending March 31, 2009

Please mark your vote in blue or black ink as shown here. Please sign, date and return your proxy promptly in the enclosed envelope.

The undersigned hereby acknowledges receipt of the Notice of Annual Meeting of Stockholders, the Proxy Statement for the Meeting and the 2008 Annual Report of the Company.

Signature of Stockholder	Date	Signature of Stockholder	Date
_____	_____	_____	_____

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

Edgar Filing: AMERICAN SCIENCE & ENGINEERING INC - Form DEF 14A

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

QuickLinks

[NOTICE OF ANNUAL MEETING OF STOCKHOLDERS TO BE HELD SEPTEMBER 11, 2008](#)

[PROXY STATEMENT](#)

[PROPOSAL NO. 1 ELECTION OF DIRECTORS](#)

[CORPORATE GOVERNANCE](#)

[OWNERSHIP OF COMMON STOCK OF THE COMPANY BY CERTAIN PERSONS](#)

[COMPENSATION OF EXECUTIVE OFFICERS](#)

[PROPOSAL NO. 2 INCREASE IN AUTHORIZED SHARES UNDER THE 2005 EQUITY AND INCENTIVE PLAN](#)

[2005 Equity and Incentive Plan](#)

[PROPOSAL NO. 3 RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS](#)

[AUDIT COMMITTEE REPORT](#)

[OTHER MATTERS](#)

[Appendix A](#)

[AMERICAN SCIENCE AND ENGINEERING, INC. 2005 EQUITY AND INCENTIVE PLAN](#)

[Appendix B](#)

[AMERICAN SCIENCE AND ENGINEERING, INC. AUDIT COMMITTEE OF THE BOARD OF DIRECTORS CHARTER JUNE 8, 2000](#)

[Amended and restated April 24, 2003](#)

[AMERICAN SCIENCE AND ENGINEERING, INC. ANNUAL MEETING OF STOCKHOLDERS September 11, 2008 THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS](#)