



FORM 10-K

AMERICAN SCIENCE ENGINEERING INC - ASEI

Exhibit:

Filed: July 16, 2001 (period: March 31, 2001)

Annual report which provides a comprehensive overview of the company for the past year

PART I

- ITEM 1. BUSINESS
- ITEM 2. PROPERTIES
- ITEM 3. LEGAL PROCEEDINGS
- ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

PART II

- ITEM 5. MARKET FOR THE COMPANY'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS
- ITEM 6. SELECTED FINANCIAL DATA
- ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
- ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
- ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

PART III

- ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE COMPANY
- ITEM 11. EXECUTIVE COMPENSATION
- ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT
- ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

PART IV

- ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K (a)The financial statements
- SIGNATURES
- EXHIBIT INDEX
- EX-23 (EXHIBIT 23)

[QuickLinks](#) -- Click here to rapidly navigate through this document

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

**/x/ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended March 31, 2001
or**

**// TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

Commission file number 1-6549

AMERICAN SCIENCE AND ENGINEERING, INC.

(Exact name of registrant as specified in its charter)

Massachusetts
(State or other jurisdiction of
incorporation or organization)

04-2240991
(IRS Employer Identification No.)

829 Middlesex Turnpike, Billerica, Massachusetts
(Address of principal executive offices)

01821
(Zip Code)

(978) 262-8700
(Registrant's telephone number, including area code)

Title of each class

Name of each exchange on which registered

Common Stock (\$.66²/₃ par value)
Securities registered pursuant to Section 12(g) of the Act: None

American Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes /x/ No //

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. //

The aggregate market value of voting stock held by non-affiliates of the registrant on June 15, 2001 was \$30,164,976.

5,027,496 shares of Registrant's Common Stock were outstanding on June 15, 2001.

The Exhibit Index is located on page 47.

PART I

ITEM 1. BUSINESS

American Science and Engineering, Inc., a Massachusetts corporation formed in 1958 (together with its subsidiaries, the "Company"), develops, produces, markets, sells, maintains and provides research, engineering and training services with respect to X-ray inspection systems. The Company's High Energy Systems Division manufactures linear accelerators for a variety of applications including medical, scientific, security, electron beam curing, and non-destructive materials testing.

The Company develops and manufactures sophisticated X-ray inspection products for critical detection and security applications. These security applications include terrorism, drug and weapon smuggling, trade fraud and trafficking in illegal aliens. The Company's patented Z® Backscatter technology detects plastic explosives, illegal drugs, and other contraband, even when artfully concealed in complex backgrounds by terrorists and smugglers. The Company's market is driven by domestic and global trends in terrorism; the continued global proliferation of drug smuggling; and the continuing increase in global trade which creates greater incentives and opportunities to evade duties or perpetrate trade fraud by misdeclaring cargo shipping manifests.

The Company believes that market demand for cargo and vehicle inspection equipment is growing in many parts of the world. Originally fueled by the desire of the U.S. Government to interdict drug traffic, the market has now expanded into other applications of broader interest to a wider range of countries. The

Company's CargoSearch™ family of products, originally developed with the assistance of the U.S. Department of Defense and the U.S. Customs Service, provides the Company with a range of products to serve this market.

The Company offers high performance X-ray systems for inspecting parcels at prices that have generally been higher than those of competing, less capable systems. However, in recent years, the Company has brought to the marketplace several new products for inspecting cargo that are priced significantly lower than competing systems. Across the entire range of its X-ray inspection systems, the Company has focused on selling products with unique features that create strong product differentiation and offer distinct performance advantages.

Products

The Company's product line currently includes 12 models. These models can be broadly categorized into 4 groups including the CargoSearch™ family, the Model 101 series, the Model 66 series, and the BodySearch™ Personnel Inspection System. All of these systems utilize the Company's Z® Backscatter technology (aspects of which are covered by issued and pending U.S. patents), which detects organic materials, such as illegal drugs, plastic explosives, and plastic weapons, which often go undetected by competing systems.

The CargoSearch™ family of products includes the CargoSearch™ system, the relocatable IsoSearch™ system, and the MarineSearch™ system, designed specifically for port applications, the MobileSearch™ system, and the PalletSearch™ system.

The CargoSearch™ system is a non-intrusive fixed-site inspection system for the X-ray scanning of trucks, cars, cargo containers, pallets, and air cargo primarily at border crossings and ports. The fixed-site CargoSearch™ system sells for a turnkey price generally lower than competing systems.

The Company's MobileSearch™ system adds flexibility, mobility and the ability to inspect cars to the basic CargoSearch concept. This mobile version is a self-contained unit inside a conventional truck that is deployable within minutes and provides the transport mechanism via a hydraulic drive. MobileSearch allows clients to engage in surprise searches. In addition to performing the kinds of contraband searches performed by CargoSearch, the MobileSearch™ system has applications in the security and force

protection areas as military personnel are increasingly exposed to guerilla-style or low intensity conflicts which leave their mobile, advanced forces exposed to the potential for terrorist attack. There are currently MobileSearch™ systems deployed in eight countries.

The IsoSearch™ and MarineSearch™ systems offer all the benefits of a fixed site CargoSearch™ system in a relocatable, modular system configured for the inspection of trucks or sea containers. IsoSearch™ offers the ability to match cargo contents with stated manifests, ensuring that appropriate duties are assessed.

PalletSearch™ was designed for the inspection of pallets for the detection of contraband, weapons and explosives for high security facilities where high confidence inspection is a requirement.

The Micro-Dose® Model 101 Series consists of 6 models. The mobile Model 101VAN™ is a sophisticated, vehicle mounted inspection system designed and built to the rigorous specifications of the U.S. Customs Service. The Model 101ZZ® Trailer is a field deployable system for extended on-site security details. The Models 101Z®, 101ZZ®, 101GT™, and 101XL™ are moveable (but not mobile), conveyor based systems allowing rapid inspection of high volumes of luggage and other packages.

The Model 66® handles small packages using the patented Z® Backscatter technology. This technology was validated by a study conducted by several U.S. government agencies involving the Model 66® and competitive systems in which the Model 66® was determined to have superior detection capability for terrorist devices hidden in complex backgrounds. This test resulted in increased order demand from both government and commercial clients, including Fortune 100 companies.

The BodySearch™ Personnel Inspection System offers a fast, safe, and non-intrusive way to screen individuals for weapons, drugs, and illegal contraband concealed under clothing, providing a viable alternative to pat or strip searches. This system is used for drug detection and head of state security as well as for correctional facility security.

AS&E's High Energy Systems Division (HES), acquired in 1998 and located in Santa Clara, California focuses on the design and fabrication of high energy, compact linear accelerators for a customer base that includes medical, materials processing, non-destructive testing, radiation testing, security and special uses.

Intellectual Property

The Company has patents in the United States, Germany, Japan, and the United Kingdom, as well as patents pending in the United States and under the Patent Cooperation Treaty. The Company has sold product in, or has marketing activity in most major regions of the world including Africa, Asia, Europe, the Middle East, Australia and South America. Each U.S. patent issued after May 1995 will have a duration of twenty years from the date of application. The Company relies on certain proprietary technology and know-how, as well as certain of these patents, to establish and maintain its competitive position. The Company believes that its patents, proprietary technology and know-how provide substantial protection for the Company's competitive position and the Company has publicly stated its intent to aggressively protect its intellectual property assets, by litigation or other means, as appropriate. During fiscal 1999 the Company instituted litigation against the U.S. Customs and EG&G Astrophysics Research Corp. in order to protect its intellectual property (See item 3—"Legal Proceedings").

Sales and Marketing

The Company's X-ray products are marketed to private and governmental organizations through a sales force that contacts potential customers and responds to public tenders and other expressions of interest. This sales force includes Company personnel based in the United States as well as representatives under contracts to sell in foreign countries who are generally on a commission basis.

Most CargoSearch™ and Micro-Dose® Systems are built for existing orders, and the Company maintains an inventory of common parts and sub-assemblies for the systems in order to meet expected customer delivery requirements and spares requirements.

Customers

The Company is heavily dependent upon sales to agencies of the U.S. Government and reductions or delays in procurements of the Company's systems by these agencies may have a material adverse effect on the Company. The Company's strategy includes reducing this dependence by emphasizing sales to foreign governments, which accounted for more than half of sales in fiscal 2001. Sales to U.S. Government agencies, in general, are generated by responding to a "Request for Quote" and are subject to standard and routine U.S. Government pre and post contract award audit as well as review of the Company's compliance with the Federal Acquisition Regulations.

During fiscal 2001, less than half of sales of X-ray products were under (i) direct contracts with the U.S. Government, and (ii) subcontracts with prime contractors working under direct contracts with the U.S. Government. Some of the Company's contracts with the government are on a cost reimbursement basis, including provisions preventing final billing until completion of the contract, and virtually all are cancelable at the government's discretion. The Company has not experienced any material losses as the result of such contractual provisions.

While the Company's emphasis on international sales has had the desired effect of reducing the Company's dependence on the U.S. Government, it has increased the Company's exposure to the very long sales cycles and project financing requirements often associated with such sales. The Company manages these risks in a number of ways including actively increasing the number of opportunities it is pursuing at any one time and by working with international funding sources to help clients finance these projects.

In fiscal year 2001, the Company had sales to three major customers which accounted for 25.0%, 18.2% and 11.7% of total sales, respectively.

Competition

The Company has many competitors in the X-ray product market, including several large and well-established manufacturers of security X-ray equipment with financial and other resources greater than those of the Company. Certain x-ray security system customers select such systems based largely on price. Other customers, notably the U.S. Government and users in countries with high levels of concern over security, tend to select systems based largely on performance and detection capability. The Company's systems offer premium performance and have in the past, with the exception of the CargoSearch™ family, generally been priced higher than many competing systems. The Company believes that its patented and proprietary technology give it a strong competitive position in the sale of security systems to customers concerned with performance and detection. The Company also believes that its strategy of concentrating on products with unique features and/or competitive pricing will give it a strong position to increase its sales of X-ray systems.

ISO 9001 Certification

In March 2001, the Company announced that its Quality Management System had been registered under the ISO 9001 standard of the International Organization for Standardization. ISO 9001 is an internationally recognized quality management and assurance standard. In qualifying, the Company met or exceeded the standards for preventing non-conformity at every level of the product life cycle, from development and design, through production and installation, to service support. The audit was conducted by Zurich Quality Management (a United Kingdom Accreditation Service auditor), which will also perform ongoing compliance audits to provide assurance of measurement systems, performance and continuous improvement. The Company believes that demonstrating continuous quality improvement is vital for building customer satisfaction and making business processes more efficient in order to increase its competitive edge.

Raw Material Availability

The Company has not experienced during the last year, and does not currently anticipate, any hardware delivery delays due to raw material shortages. Most procured material is from U.S. sources. However, the Company is dependent upon certain overseas sole source providers of important components. No rare or exotic materials are utilized.

Regulatory Compliance

The Company complies with applicable Health and Human Services regulations outlined under the "Regulations for the Administration and Enforcement of the Radiation Control for Health and Safety Act of 1968" (21CFR 1020.40), published by the U.S. Department of Health and Human Services. All x-ray products of the Company comply with all applicable U.S. Government regulatory standards.

Research and Development

During fiscal 2000 and 1999, the Company conducted government-sponsored research primarily focused on technologies for the detection of illicit drugs, explosives, and other security issues. The Company recognized revenues of \$416,000 and \$2,664,000, in fiscal 2000 and 1999, respectively for these efforts. No government-sponsored research projects were performed in fiscal 2001. In addition, the Company spent approximately \$5,060,000 of its own funds for research relating to the development of new products or services during fiscal 2001, compared to \$5,902,000 and \$6,380,000 in fiscal 2000 and 1999, respectively.

A significant amount of the Company's government sponsored research and development work is obtained via contracts or subcontracts that typically provide for reimbursement of allowable costs plus a fixed fee. The Company's contracts in these areas are obtained by submitting research and development proposals to various organizations, sometimes in response to requests for such proposals. The Company's contract research ranges from advances in X-ray systems and image analysis to integrated system development for niche security inspection problems.

Personnel

As of March 31, 2001 the Company had 308 employees compared to 323 employees at the end of the prior year. All Company employees sign nondisclosure agreements as a condition of employment.

Sales Backlog

The Company's firm (under signed contracts) sales backlog was \$40,150,000 at March 31, 2001 and \$25,420,000 at March 31, 2000.

A majority of the Company's contracts with the U.S. Government contain clauses permitting the government to terminate the contract for convenience upon certain terms and conditions, including payment to the Company of an appropriate fee or profit on work performed. The total of such contracts in the backlog was \$15,462,000 at the end of fiscal year 2001 and \$5,976,000 at the end of fiscal year 2000. It is estimated that approximately 76% of the 2001 backlog will be filled within the fiscal year ending March 31, 2002.

Financial Information About Foreign and Domestic Operations and Export Sales

All export sales are made in U.S. dollars, and many are either secured by irrevocable letters of credit or paid in advance. Export sales are believed by the Company to be at least as profitable as similar domestic sales. The Company has not encountered, nor does it anticipate encountering, risks attendant to export sales that are greater than risks attendant to domestic sales. The following chart provides information about the breakdown between domestic and export sales for the indicated fiscal years. With

the exception of small amounts of spares inventory maintained at foreign locations (less than 1% of the Company's assets), all assets are maintained within the United States.

Net Sales and Contract Revenues (Dollars in thousands)

	2001	2000	1999
Domestic	\$ 31,695	\$ 27,360	\$ 26,274
Export	\$ 35,416	\$ 33,314	\$ 31,021
Percent of Export Revenue by Major Region:			
Middle East & Africa	66.5%	48.7%	54.2%
Mexico	6.9	38.1	29.6
Europe	13.8	5.7	5.0
Pacific Rim	12.7	4.1	10.5
All Other	0.1	3.4	0.7

ITEM 2. PROPERTIES

The Company's executive offices and its research, manufacturing and warehouse facilities are located in Billerica, Massachusetts and Santa Clara, California. In Billerica, the Company occupies 118,300 square feet of space in a 160,000 square foot single-story; concrete and brick building owned by an unaffiliated real estate limited partnership. The building owner currently leases the remaining space in the building to an unaffiliated manufacturing company. The Company occupies the space under a long-term lease with a ten-year initial term that commenced March 1, 1995, and its one (1) ten-year optional extension term. In October 1999, the Company leased an additional 56,000 square feet of manufacturing and office space in an office park near the main office. This lease has a term of five years. In May 2000, the Company sub-leased 12,700 square feet of separate manufacturing and office space to an unaffiliated company. The facilities are currently utilized on a one-shift basis. The Company can add additional capacity by adding second and third shifts if necessary.

In August 1998, the Company established the High Energy Systems Division. Located in Santa Clara, California, the Division leases 11,700 square feet of manufacturing, research and office space. The lease has a term of three years that commenced on August 18, 1998. The lease has two three-year optional extension terms. The Company's facilities are currently utilized on a one-shift basis. The Company can add additional capacity by adding second and third shifts if necessary.

ITEM 3. LEGAL PROCEEDINGS

The United States Court of Appeals for the Federal Circuit in Washington, D.C., in a decision issued December 29, 1999, ruled that American Science and Engineering may pursue a patent infringement claim against Vivid Technologies (Vivid) which produces x-ray detection devices used in baggage scanning equipment.

The Appeals Court overturned a 1998 decision in Vivid's favor by the Massachusetts Federal District Court. The lawsuit, filed by Vivid Technologies in May 1996, concerns whether Vivid's x-ray detection devices infringed on AS&E's patent. The District Court had ruled that AS&E could not assert a claim that Vivid's devices infringed on AS&E's patent. The Appeals Court also reversed the district court's finding on summary judgment that Vivid did not infringe on AS&E's patent, as well as the district court's denial of AS&E's request for discovery to oppose Vivid's summary judgment motion. Discovery is now proceeding.

In September 1998, the Company filed suit against EG&G Astrophysics Research Corp. (EG&G) in U.S. District Court in Boston, Massachusetts alleging that EG&G is infringing on at least two patents owned by the Company and that EG&G has misappropriated certain trade secrets of the Company. In February 1999, the Company filed a related action in the same court against the U.S. Customs Service ("Customs") alleging that Customs had either misappropriated the Company's trade secrets or facilitated

their misappropriation by EG&G and that Customs had improperly entered into a contract with EG&G for the acquisition of a product functionally equivalent to the Company's MobileSearch™ X-ray inspection system. In May 1999, the Court held a hearing on the Company's motion for a preliminary injunction against both Customs and EG&G prohibiting further performance of the contested contract and preventing EG&G from utilizing the Company's trade secrets. In August 1999, the Court issued a ruling denying the request for the preliminary injunction. In December 1999, EG&G filed a Motion for Summary Judgment that EG&G did not misappropriate the Company's trade secrets and in March 2000 EG&G filed a Motion for Summary Judgment that EG&G did not infringe the Company's patents. In February 2001 the Court denied EG&G's motion for Summary Judgment. The Company is continuing to pursue its claims against EG&G, but has filed a motion to dismiss the suit against U.S. Customs.

In a related matter, EG&G has filed a request with the U.S. Patent and Trademark Office for reexamination of the two patents that currently are at issue in the patent infringement action described above. The Company filed oppositions to the re-examination requests and was advised by the U.S. Patent and Trademark Office that the Company's MobileSearch X-ray inspection patent was upheld in all material respects. The U.S. Patent and Trademark Office have now also advised the Company that the Company's patent on its Z® Backscatter X-ray inspection technology has been upheld in all material respects.

In February 2000, Heimann Systems GmbH (Heimann) filed a civil action in U.S. District Court in Boston, Massachusetts against the Company alleging that the Company infringed a Heimann patent relating to a mobile vehicle and x-ray examining device. The Company denies Heimann's assertions and believes that Heimann's claims are without merit. The Company does not expect the outcome of this litigation to have a material impact to its financial position or results of operations.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matter was submitted to a vote of the Company's security holders during the fourth quarter of the fiscal year covered by this report.

PART II

ITEM 5. MARKET FOR THE COMPANY'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

The Company's Common Stock is listed on the American Stock Exchange (ticker symbol: ASE). The market price range for the Common Stock for the last two fiscal years follows:

<u>Fiscal Year</u>	<u>Quarter Ended</u>	<u>High</u>	<u>Low</u>
2001	March 31, 2001	6.230	4.950
	December 31, 2000	5.500	4.125
	September 30, 2000	7.250	5.750
	June 30, 2000	6.250	4.500
2000	March 31, 2000	7.750	6.125
	December 31, 1999	8.500	6.625
	September 30, 1999	7.875	6.000
	June 30, 1999	9.625	8.188

As of June 15, 2001, there were approximately 1,146 holders of record of the Company's Common Stock.

No cash dividends have been declared in the two most recent fiscal years and the Board of Directors does not contemplate paying any dividends in the immediate future.

The Company's credit facility restricts the payment of dividends (except in shares of the Company's stock) without consent of the bank.

ITEM 6. SELECTED FINANCIAL DATA

(Dollars in thousands, except per share amounts)

<u>Fiscal Year</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
Net sales and contract revenues	\$ 67,111	\$ 60,674	\$ 57,295	\$ 32,699	\$ 28,479
Net income	660	1,459	2,045	4,661	1,925
Income per share—diluted	0.13	0.29	0.40	0.95	0.40
Total assets	44,310	38,205	30,204	25,993	15,514
Obligations under capital leases	—	16	40	42	60
Stockholders' investment	22,634	21,375	19,347	16,084	10,150
Book value per share	4.52	4.31	3.97	3.39	2.21

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

2001 Compared to 2000

Overview

Net sales and contract revenues for fiscal 2001 increased by 11% to \$67,111,000 versus fiscal 2000 net sales and contract revenues of \$60,674,000. The Company had income before taxes of \$805,000, an increase of 73% compared to \$466,000 income before taxes in the previous year. Net income for fiscal 2001 was \$660,000 (\$.13 per share, on a diluted basis) as compared to \$1,459,000 (\$.29 per share, on a diluted basis) in fiscal 2000. Backlog at March 31, 2001 was \$40,150,000, a 58% increase from the backlog reported at the previous fiscal year end.

Changes in Financial Condition—Cash and cash equivalents at year-end decreased by \$40,000 to \$1,206,000, compared to \$1,246,000 in 2000. Accounts receivable increased by \$3,450,000 from the prior year due to the increased shipments made during the fourth quarter of fiscal 2001. Unbilled receivables decreased by \$210,000 due to milestones achieved on several contracts. Inventories increased by \$3,553,000 due to additional purchases made on systems in progress and increased spares requirements. Customer deposits decreased by \$317,000 due to progress made on certain long-term contracts. The Company's borrowings under its line of credit increased by \$2,019,000 due to additional borrowings to primarily support working capital needs.

Results of Operations—Net sales and contract revenues increased by \$6,437,000 or 11% during fiscal year 2001 attributable to increased CargoSearch systems sales. There were no contract research and engineering revenues earned in fiscal 2001, a \$416,000 decline from the prior year.

Cost of sales and contracts in fiscal 2001 of \$50,892,000 was \$7,398,000 higher than the previous year primarily due to increased equipment sales and performance on several contracts. Cost of sales and contracts represented 76% of revenues during fiscal 2001, compared to 72% in fiscal 2000. This percentage increase in the cost of sales was due to a shift in product mix, delays encountered and cost overruns on systems projects, continued investments in global technical support capabilities and the introduction of new or enhanced products in response to growing domestic and international demand.

Selling, general and administrative expenses of \$9,688,000 were \$792,000 lower than the previous year and represented 14% of revenues, compared to 17% in 2000. The decreased spending level was primarily due to the reduced legal and personnel related costs.

Company funded research and development spending decreased to \$5,060,000 in fiscal 2001, a 14% decrease compared to the \$5,902,000 in spending in fiscal 2000. Research and development spending in fiscal 2001 and fiscal 2000 was 8% and 10% of revenues, respectively.

Other expenses increased \$334,000 in the year to \$666,000 for fiscal 2001 due primarily to increased borrowings under the Company's line of credit.

The Company recorded net income of \$660,000 for fiscal year 2001, a decrease of \$799,000, or 55% below net income of \$1,459,000 in the previous year. The Company was profitable in all quarters of 2001.

2000 Compared to 1999

Overview

Net sales and contract revenues for fiscal 2000 improved by 6% to \$60,674,000 versus fiscal 1999 net sales and contract revenues of \$57,295,000. The Company had income before taxes of \$466,000, a decrease of 86% compared to \$3,409,000 income before taxes in the previous year. During fiscal 2000, the Company recorded a net tax benefit of \$993,000 consisting principally of a substantial, non-recurring research and development tax credit as well as tax benefits associated with the Company's foreign sales corporation. Net income for fiscal 2000 was \$1,459,000 (\$.29 per share, on a diluted basis) as compared to \$2,045,000 (\$.40 per share, on a diluted basis) in fiscal 1999. Backlog at March 31, 2000 was \$25,420,000, a 34% decrease from the backlog reported at previous fiscal year end.

Changes in Financial Condition—Cash and cash equivalents at year-end increased by \$880,000 to \$1,246,000, compared to \$366,000 in 1999. Accounts receivable decreased by \$1,682,000 from the prior year due to the decreased shipments made during the fourth quarter of fiscal 2000. Unbilled receivables increased by \$6,743,000 due to performance achieved on several contracts. Deferred income taxes increased \$1,325,000 as a result of the Company recording tax benefits associated with the above mentioned research and development tax credits and tax benefits associated with the Company's foreign sales corporation. The Company's borrowings under its Line of Credit increased by \$3,000,000 due to additional borrowings to primarily support working capital needs. Customer deposits increased \$928,000

due to advances on certain long-term contracts. Deferred revenue increased \$1,046,000 due to advances for extended warranty and service contracts.

Results of Operations—Net sales and contract revenues increased by \$3,379,000 or 6% during fiscal year 2000. In fiscal 2000, security systems revenues of \$60,258,000 represented an increase of \$5,627,000 or 10% over 1999. Contract research and engineering revenues of \$416,000 decreased by \$2,248,000 or 84% below 1999.

Cost of sales and contracts in fiscal 2000 of \$43,494,000 was \$5,138,000 higher than the previous year primarily due to increased equipment sales and performance on several contracts. Cost of sales and contracts represented 72% of revenues during fiscal 2000, compared to 67% in fiscal 1999. This increase in the cost of sales ratio was due to a shift in product mix as well as continued investments made in operations infrastructure, global technical support capability and the introduction of new or enhanced products in response to growing domestic and international demand.

Selling, general and administrative expenses of \$10,480,000 were \$1,397,000 higher than the previous year and represented 17% of revenues, compared to 16% in 1999. The increased spending level was primarily due to the inclusion of the Company's High Energy Systems division for a full year as well as outside legal costs associated with the Company's protection of its intellectual property rights.

Company funded research and development spending decreased to \$5,902,000 in fiscal 2000, a 7% decrease compared to the \$6,380,000 in spending in fiscal 1999. Research and development spending in fiscal 2000 and fiscal 1999 was 10% and 11% of revenues, respectively.

In the fourth quarter of fiscal 2000, the Company recorded a tax benefit of \$1,675,000 consisting principally of a nonrecurring research and development tax credit as well as a benefit related to the fourth quarter loss. This resulted in a net tax benefit of \$933,000 for the full fiscal year. In fiscal 1999, the Company recorded a provision for income taxes of 40%, of which the significant components included federal and state income taxes.

The Company recorded net income of \$1,459,000 for fiscal year 2000, a decrease of \$586,000, or 29% below net income of \$2,045,000 in the previous year. On a comparative basis, using fiscal 1999 tax provision rate of 40%, fiscal 2000 net profits would have been \$280 resulting in an decrease in fiscal 2000 net profits of 86% below fiscal 2000. The Company was profitable in all quarters.

Liquidity and Capital Resources

Cash and cash equivalents were \$1,206,000 at March 31, 2001 as compared to \$1,246,000 at March 31, 2000. Cash used for operating activities of \$749,000 was attributable primarily to increases in accounts receivable and inventory balances offset by increases in accounts payable and accrued liabilities.

Fiscal 2001 capital expenditures totaled \$1,342,000. This represents a decrease of 53%, or \$1,516,000, from the prior year capital expenditures of \$2,858,000. Capital expenditures were comprised primarily of investments in information technology, leasehold improvements, and furniture and fixtures. Capital expenditures are funded by cash generated by operations or from the lines of credit available to the Company.

On November 30, 2000, the Company signed two new credit agreements with HSBC Bank USA ("HSBC"). The first agreement is for a \$10.0 million domestic revolving credit facility to support the Company's routine working capital and standby letter of credit needs. The second is a \$30.0 million export credit and security agreement, guaranteed by the Export-Import Bank of the United States to support the Company's overseas contract, trade finance and working capital needs. The credit facility bears an interest rate of the HSBC Bank USA prime rate or LIBOR plus 2.0% at the Company's option (8.0% at March 31, 2001). At the end of fiscal 2001, \$6.0 million in borrowings were outstanding and \$21.8 million in standby letters of credit were in effect against this credit facility. The credit agreements are collateralized by certain assets of the Company, and contain certain restrictions, including limitations on the amount of distributions that can be made to stockholders, encumbrances of assets, and loans that can be made to officers, and requires the maintenance of certain financial covenants. The Company was in compliance with all covenants at March 31, 2001.

Forward-Looking Information and Factors Affecting Future Performance

Some of the statements contained in this Report and in the documents incorporated by reference are forward-looking made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. In essence, forward-looking statements are predictions of future events. Although we would not make forward looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy and actual results may differ materially from those we anticipated due to a number of uncertainties, many of which we are not aware. It should also be understood that we have no plans to update our forward-looking statements. Our forward-looking statements are accurate only as of the date of this Report, or in the case of forward-looking statements in documents incorporated by reference, as of the date of those documents. Certain risk factors, which might cause actual results to differ materially from those projected, are set forth below.

Customer Concentration

During fiscal 2001, three customers made up 55% of the total revenues of the Company. In addition, the Company is heavily dependent on sales to agencies of the United States government. During fiscal 2001, the Company's largest customer, the U.S. Customs Service, which is an agency of the United States government, accounted for approximately 25% of the Company's net revenues. Termination of this relationship would have a material adverse effect on the Company. Generally, the government may terminate its contracts with the Company for convenience, upon certain terms and conditions, including payment to the Company of costs incurred and an appropriate fee or profit on work performed. Termination of government contracts with a significant dollar value would have a material adverse effect on the Company. Significant reductions or delays in procurements of the Company's systems by the United States government would also have a material adverse effect on the Company.

Dependence on Foreign Sales

Foreign sales, including sales to foreign governments, accounted for approximately 53%, 55% and 54% of the Company's net revenues for the fiscal years ended March 31, 2001, March 31, 2000, and March 31, 1999, respectively. The Company anticipates that foreign sales will continue to account for a significant percentage of the Company's net revenues for the foreseeable future. As a result, a significant portion of the Company's revenues is subject to risks associated with foreign sales. These risks include currency fluctuations, policy changes, political and economic instability, longer payment cycles of foreign customers, differences in United States and foreign regulatory requirements and difficulty of collecting receivables in foreign jurisdictions, and difficulties in managing foreign distributors and representatives. Although nearly all of the Company's foreign sales are denominated in United States dollars, changes in the value of the United States dollar in relation to foreign currencies may adversely affect the Company's sales to foreign customers.

Limited Sources of Materials and Services

The Company currently procures certain critical components for its products from single or limited sources. For example, the Company currently procures certain of its X-ray tubes and related control devices from two sources; each such source is the Company's sole supplier of particular tubes. Both of these sources are located outside the United States. The Company has multiple sources, including sources located in the United States, of other types of x-ray tubes. In addition, the Company relies on single suppliers for the assembly of proprietary circuit boards and all of the Company's scintillating material. While long-term supply contracts exist with a few single-source vendors, the Company generally purchases these materials on a purchase order basis, and the Company does not carry significant inventories of these materials. The inability of the Company to obtain these materials in reliable, high-quality quantities would result in significant delays or reductions in product shipments. The Company from time to time experiences delays in receiving components from vendors, and no assurance can be given that similar problems will not recur. If the Company were to change certain of its vendors, a qualification process would be required for the potential new suppliers, creating potential delays or reductions in product shipments. Further, single source vendors could impose significant price increases. The Company's reliance on single or limited sources involves several additional risks, including reduced control over the timely delivery, reliability, and quality of critical components. Any inability of the Company to obtain timely deliveries of materials of acceptable quality, or a significant increase in the prices of materials, could materially and adversely affect the Company's operating results.

Exposure to Volatile Federal Funding Priorities

The Company does a significant amount of business with agencies of the United States government. See "RISK FACTORS—Customer Concentration." There can be no assurance that the Company's existing relationships with Federal agencies will continue, nor that the agencies themselves will continue to exist in their present form. Further, national priorities are subject to change and often do change, especially in response to the four-year Presidential election cycle. Such changes could include a shift in the current priorities that have led to demand for the Company's products. Additionally, the Company is exposed to the Federal budget approval and appropriation cycle, which may be subject to significant and unpredictable delays. All of these factors may materially and adversely affect the Company's operating results.

Competitor Litigation and Intellectual Property Claims

The X-ray security industry is characterized by vigorous competition, in part through the pursuit and enforcement of intellectual property rights. Initiating or defending against the enforcement of such rights may result in significant, protracted, and costly litigation. Current litigation includes a civil action filed by a competitor seeking a declaratory judgment that its product does not infringe upon certain of the Company's patents and an action against the Company by a competitor alleging patent infringement. The Company expects intellectual property disputes to be an ordinary part of its business for the foreseeable future. The Company may initiate claims or litigation against third parties for infringement of the Company's intellectual property rights, or to establish the validity of the Company's property rights. There can be no assurance that the Company will prevail in any such action. Litigation by or against the Company could result in significant expense to the Company and divert the efforts of technical and management personnel, whether or not such litigation results in a favorable outcome for the Company. In the event of an adverse result in any such litigation, the Company could be required to pay substantial damages, cease the manufacture, use and sale of infringing products, expend significant resources to develop non-infringing technology, discontinue the use of certain processes, or obtain licenses for the infringing technology. However, there can be no assurance that licenses will be offered or that the terms of any offered license will be acceptable to the Company; that the Company will be successful in developing non-infringing technology; or that the cost or time required to develop such technology will be reasonable.

The inability to obtain a license from a third party for technology used by the Company could cause the Company to incur substantial liabilities and to suspend the manufacture of infringing products. In the event that a third party makes a successful claim of intellectual property infringement against the Company or its customers, and a license is not made available to the Company on commercially reasonable terms, or if the Company is unable to protect its intellectual property rights against infringement by a third party, the Company's business, financial condition, and operating results may be adversely affected.

Fluctuations in Quarterly Operating Results

Due to the lengthy sales cycles of some of the Company's products, the timing of its revenues is difficult to predict and may cause the Company to miss its revenue expectations. A significant amount of the Company's expenditures are fixed, due to our investments in our manufacturing, sales and research and development efforts. If revenue forecasted from a specific customer for a particular quarter is not realized in that quarter, the Company may incur expenses that are not offset by corresponding revenue.

Product Performance Liability

The Company's products are often used to detect the presence of bombs, weapons, or other threats to personal safety in buildings, mail and delivery parcels, aircraft luggage and air cargo, border crossings, public gatherings, and other high-security venues. Operator error, misuse of the Company's equipment or a malfunction of that equipment may lead to personal injury, loss of life, and extensive property damage and resulting claims against the Company. The Company is not aware that any such claims have been filed or are planned. The Company maintains product liability, umbrella liability, and special aircraft products liability insurance to provide a measure of protection against claims alleging product malfunction or inadequate design. However, should any such claim be made, there is no assurance that the Company's insurance protection is adequate to protect against any and all future potential product liability claims. Moreover, there can be no assurance that adequate product liability insurance coverage will continue to be available at a reasonable cost. To the degree liability claims exceed the current or available insurance coverages, there could be a material adverse effect on the Company's business, financial condition, and operating results. Additionally, regardless of the adequacy of the Company's product liability insurance protection, any significant claim may have a severely negative effect on the Company's industry and market reputation, leading to a substantial decrease in demand for the Company's products. Such an occurrence would have a material and adverse effect on the Company's revenues and operating results.

Research and Development Funding

The Company competes in part based on the value of its advanced technology. It is the Company's intention to remain on the leading edge of technology in its fields of interest through research and development. There can be no assurance that the Company will be able to continue to innovate, to bring its innovations to market on a timely or cost effective basis, or that its innovations will not be surpassed by other competitors or new technologies. Furthermore, the Company must either generate its own research and development funding or obtain funds from outside sources, primarily the U.S. Government. The Company competes with many other companies and research institutions for government funding. Additionally, government-funding priorities are subject to frequent changes. See "RISK FACTORS—Exposure to Volatile Federal Funding Priorities." There can be no assurance that the Company will be able to generate the funds necessary to support its research and development activities from operations or other potential private sources, or that such funds will be available from the government. The inability of the Company to fund its research and development activities, or the failure of such activities to generate successful technology accepted in the marketplace, may have a material adverse effect on the Company's business and operations.

The Company's products are often used to detect drugs, explosives and other contraband. The willingness of customers to pay for solutions to these problems is subject in part to worldwide political and economic developments. Terrorist incidents and other widely publicized events, the election or replacement of influential politicians, the perceived seriousness of the problems addressed by the Company's products, media coverage of these issues, budgetary and tax concerns, exchange rates, diplomatic relations and the like may materially affect the demand for the Company's products.

Highly Competitive Industry, Competition from New Technologies

The markets for the Company's products are highly competitive and subject to rapid technological change. Many of the Company's current and potential competitors have substantially greater resources than the Company. The Company's success will depend upon its ability to enhance its existing products and to develop new products to meet customer requirements. Competitors may develop superior products or products of similar quality at the same or lower prices. Other technological innovations may impair the Company's ability to market its products. There can be no assurance that the Company will be able to compete successfully.

ITEM 7(A). QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

N/A

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements and supplementary financial information listed in the Index to Consolidated Financial Statements and Schedule on page 24 are filed as part of this Annual Report on Form 10-K and are incorporated into this Item by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE COMPANY

Directors and Executive Officers of the Company as of May 31, 2001.

Name	Age	Positions and Offices of Company Held	Date Assumed Each Position
<u>DIRECTORS</u>			
William E. Odom	68	Director	September 1996
		Chairman	September 1998
Hamilton W. Helmer	54	Director	February 1993
Donald J. McCarren	61	Director	February 1993
Carl W. Vogt	65	Director	June 1997
Roger P. Heinisch	63	Director	August 1999
Ralph S. Sheridan	51	Director	January 1994
		President & CEO	September 1993
<u>EXECUTIVE OFFICERS</u> (Who are not also Directors)			
William L. Adams	68	Vice President, Chief Engineer	September 1998
Joseph Callerame	51	Vice President, Technology Chief Technology Officer	June 1998
Ralph G. Foose	57	Vice President, Operations	September 1999
Edwin L. Lewis	54	Vice President, General Counsel and Clerk	March 2000
Richard Mastronardi	53	Vice President, Field Operations	September 2000
Robert J. Peters	40	Vice President, Marketing	November 1997

All Directors and Executive Officers hold office until the next annual meeting of Stockholders and until their successors are duly elected and qualified. No family relationship exists between any of the listed Directors and Executive Officers.

Dr. Herman Feshbach, a long time member of the Board of Directors of the Company, passed away on December 12, 2000. The Company is deeply saddened by his passing and recognizes his long and significant efforts on behalf of the Company.

Dr. Roger P. Heinisch joined the Honeywell Corporation in 1968 where he served in various scientific and engineering positions before becoming Director of Research in 1978. In 1980, Dr. Heinisch became the Director of the Systems and Research Center and was named Vice President of the Center in 1982. He became Vice President of Honeywell's Flight Systems Operations in 1985. In 1988, Dr. Heinisch was appointed Corporate Vice President of Advanced Technology. In 1990, he became Vice President of Materials and Manufacturing for the Defense Systems Group. When Alliant Techsystems was spun off from Honeywell in 1991, he 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 at Alliant. Dr. Heinisch holds a B.S. in Nuclear Engineering from Marquette University, a M.S. in Nuclear Engineering from Marquette University and a Ph.D. in Engineering Science from Purdue University. 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. Currently, Dr. Heinisch serves on the boards of Nichols Research Corp., Nonvolatile Electronics, Inc., Theseus Logic Inc., Third Wave Systems, Point Cloud and Superior Vocabulary.

Dr. Hamilton W. Helmer has, for the last 15 years, been Managing Partner of Helmer & Associates, a strategic consulting firm located in Los Altos, California. Prior to that, Dr. Helmer worked for Bain & Co. Dr. Helmer holds a Ph.D. in Economics from Yale University.

Dr. Donald J. McCarren is President of an early stage, privately held, functional genomics research organization, Alpha Gene, Inc. Previously, Dr. McCarren served as President of the National Center for Genome Resources, a non-profit corporation located in Santa Fe, New Mexico, which supports genome projects and related research by providing resources such as expertise in bioinformatics. Prior to assuming that position in 1997, Dr. McCarren was the founder of Tacora Corporation, a medical technology company located in Seattle, Washington. From July 1992 to June 1994, he was President and Chief Operating Officer of ImmunoGen, Inc., a small molecule cancer research and development company located in Cambridge, Massachusetts. Prior to that, Dr. McCarren spent almost 9 years in Erbamont N.V. serving as President (1990 to 1992) of the Adria Laboratories Division of Erbamont N.V. in Columbus, Ohio, and Corporate Vice President of Worldwide Marketing and Business Development (1989 to 1990) and Vice President of Far East and Austral-Asian Operations (1986 to 1989) of Erbamont, N.V. Dr. McCarren holds a Ph.D. in Developmental Economics.

General William E. Odom is the Director of National Security Studies for the Hudson Institute in Washington, D.C. and an adjunct Professor in the Department of Political Science at Yale University. Prior to joining the Hudson Institute in 1988, General Odom spent 34 years as an officer in the United States Army, retiring with the rank of Lieutenant General. While on active duty, General Odom served as Director of the National Security Agency for three years, Assistant Chief of Staff for Intelligence for the Department of the Army for four years and Military Assistant to the President's National Security Advisor for four years. General Odom received his B.S. degree from West Point and Masters and Ph.D. degrees from Columbia University. General Odom is on the Board of Directors of Nichols Research Corporation of Huntsville, Alabama, V-ONE Corporation of Rockville, Maryland, Middlebury College, from which he received an honorary doctorate, and the Institute for the Study of Diplomacy at Georgetown University. General Odom is the author of five books and numerous articles.

Mr. Ralph S. Sheridan was elected President and Chief Executive Officer of the Company in September 1993, and in January of 1994, he was elected a Director. Prior to joining the Company, Mr. Sheridan ran his own consulting and investment firm, Value Management Corporation, in Waltham, Massachusetts. Prior to that, Mr. Sheridan was President and CEO (1988-1989) and Vice President of Marketing and Operations (1987-1988) of HEC Energy Corp., in Boston, Massachusetts. Before joining HEC, Mr. Sheridan held the position of Vice President of Operations for the Engineered Systems and Controls Group (1984-1986) and Vice President of Corporate Business Development (1981-1984) at Combustion Engineering, Inc. in Stamford, Connecticut. Mr. Sheridan holds a B.S. in Chemistry and an M.B.A., both from Ohio State University.

Mr. Carl W. Vogt was elected to the Board in June 1997. He is a partner in the Washington, D.C. office of the national law firm of Fulbright & Jaworski. Mr. Vogt has been with that firm since 1966, with various periods away from the firm to perform government service. In 1992, he was appointed by President Bush as the Chairman of the National Transportation Safety Board, where he served until 1994. Mr. Vogt earned his bachelor's degree from Williams College and his law degree from the University of Texas Law School.

Dr. Joseph Callerame joined American Science & Engineering in June 1998 as Vice President, Technology, and Chief Technology Officer. Prior to joining AS&E, Dr. Callerame spent over twenty years at Raytheon Company, most recently as Manager, Engineering and Technology Development and Consulting Scientist, at Raytheon Electronic Systems. Prior to that appointment, Dr. Callerame was Deputy General Manager of Raytheon's Corporate Research Division. Dr. Callerame received his B.A. in Physics from Columbia College, and his M.A. and Ph.D., also in Physics, from Harvard University. After

receiving his Ph.D. and prior to his employment at Raytheon, Dr. Callerame served as a Post-Doctoral Fellow in Nuclear Physics at M.I.T.

Dr. William Adams is President of Adtech Consulting, Inc., a technology and management-consulting firm located in Columbus, Ohio. Dr. Adams joined AS&E in July 1997 as acting Chief Technology Officer. In August 1998 he became the acting Vice President of Operations and he now serves as Chief Engineer. Prior to joining AS&E Dr. Adams spent over thirty years in engineering and general management in process automation firms including AccuRay, Combustion Engineering, and ABB. During this period he held positions as Vice President of Field Service, VP of Engineering, Senior Vice President of Engineering, Manufacturing, and Marketing, and Vice President of Quality. In 1987 Dr. Adams established a process automation joint venture in Russia for Combustion Engineering. Dr. Adams and his wife moved to Moscow in 1991 where he managed the joint venture for ABB after Combustion Engineering was acquired by ABB. Dr. Adams retired from ABB in 1994 and established Adtech Consulting, Inc. Dr. Adams holds a B.S. in Electrical Engineering from Michigan Technological University, a SM in Electrical Engineering from MIT, and a Ph.D. from Purdue University.

Mr. Robert J. Peters joined the Company in November of 1997 as the Director of Product Development Engineering, and was promoted to his current position in March of 1998. He is responsible for all of the marketing, application and sales engineering, as well as communications. Prior to joining AS&E, Mr. Peters spent 14 years in the Defense industry, working for General Dynamics, Lockheed Martin, General Electric and RCA. Through various positions in engineering, program management and sales and marketing, Mr. Peters has led new product development of combat vehicles, stabilization systems, diagnostic systems and paperless documentation environments. He has developed joint ventures in the U.K. and worked extensively throughout Asia and Europe. Mr. Peters earned a B.S. in Electrical Engineering and a M.E. in Biomedical Engineering from Worcester Polytechnic Institute and a M.S. in Electrical Engineering from Northeastern University in Boston, MA.

Mr. Ralph Foose joined AS&E as Vice President of Operations in September 1999 after three years as President and Chief Financial Officer of Sight in Systems, a software manufacturing company. Prior to his work at Sight in Systems, Mr. Foose was President of IRD Mechanalysis where he led a company turnaround. In 1986 Mr. Foose joined Combustion Engineering as President of Taylor Instrument Systems. During his six-year tenure, the company split into two divisions and grew from \$20 million in annual sales to \$150 million. Early on in his career, Mr. Foose held various technical consulting and managerial positions with Booz-Allen Hamilton, AccuRay Corporation and NASA. Mr. Foose holds a B.S. in Electrical Engineering from Florida Institute of Technology and an M.S. in Computer Science from Ohio State University.

Mr. Edwin L. Lewis joined the Company in March 2000 after over two years as President of the Atlantic Legal Foundation, a public interest law firm in New York City. From 1995 to 1997, Mr. Lewis was Vice President, General Counsel and Corporate Secretary of Borg-Warner Corporation and from 1983 to 1995 was general counsel for its subsidiaries, Burns International and Wells Fargo Alarm Services. Prior to that, Mr. Lewis was senior attorney for Atlantic Richfield Company. Mr. Lewis holds a Juris Doctor Degree from Temple University School of Law and a Bachelor of Arts Degree in International Affairs from Lafayette College. Mr. Lewis is a member of the Legal Advisory Board of the National Federation of Independent Business Legal Foundation.

Mr. Richard Mastronardi rejoined the Company in September 2000 as Vice President, Field Operations after having worked with the organization as Senior Vice President and Vice President of Engineering from 1975 through 1987. Prior to rejoining AS&E, Mr. Mastronardi was Chief Operating Officer of Adcole Corporation, a manufacturer of satellite-borne sun sensors and precision gages for the automotive industry. Before that, Mr. Mastronardi was Vice President and General Manager of Caprius, Inc., a manufacturer of Medical MRI Systems and spent ten years as Vice President of R&D at

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 and Executive Officers, 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 2001, the Company was in compliance with its Section 16(A) Reporting Compliance.

ITEM 11. EXECUTIVE COMPENSATION

The following chart provides information concerning compensation paid by the Company during the year ended March 31, 2001 to the Chief Executive Officer and each of the four most highly compensated executive officers of the Company whose aggregate compensation exceeded \$100,000.

SUMMARY COMPENSATION

Name and Principal Position	Fiscal Year	Annual Compensation		Long-Term Compensation	All other Compensation (\$) ⁽¹⁾
		Salary (\$)	Bonus (\$)	Option Awards (#)	
Ralph S. Sheridan President and CEO	2001	274,710	—	—	4,710
	2000	267,120	172,500 ⁽³⁾	225,000	4,058
	1999	245,495	230,000 ⁽³⁾	—	5,658
Joseph Callerame Vice President, CTO	2001	211,502	— ⁽⁴⁾	—	3,002
	2000	211,964	58,500 ⁽⁵⁾	—	2,719
	1999	—	— ⁽⁴⁾	50,000	2,212
Ralph G. Foose Vice President, Operations	2001	206,628	— ⁽⁴⁾	—	10,474
	2000	113,846 ⁽²⁾	—	50,000	—
Edwin L. Lewis Vice President, General Counsel	2001	181,550	10,000	10,000	3,100
	2000	12,461 ⁽²⁾	—	40,000	—
Robert J. Peters Vice President, Marketing	2001	150,249	36,450 ⁽⁶⁾⁽⁴⁾	20,000	1,074
	2000	141,081	—	3,000	290
	1999	126,568	16,500	15,000	224

(1) All Other Compensation includes imputed income from taxable life insurance premiums paid by the Company, and, for Mr. Sheridan, a leased automobile.

(2) The indicated years were years of partial employment with the Company for the named executive.

(3) Mr. Sheridan's bonus is paid in respect of "contract years" ending September 30th in each year and is paid in cash.

(4) The bonus amount for these officers has not been determined for fiscal year 2001.

(5) Represents bonus earned in fiscal 1999 and fiscal 2000.

(6) Represents bonus earned in fiscal 2000.

Mr. Sheridan has an employment contract with the Company that provides for his employment as President and Chief Executive Officer, and as a Director, through September 2002, at an annual salary of \$270,000, subject to annual review, plus performance bonuses tied to specific accomplishments. This contract replaces Mr. Sheridan's prior contract with the Company, which expired in September 1999.

Under the contract, Mr. Sheridan is eligible to receive an annual bonus of up to \$270,000 in each contract year, based on his accomplishment of goals established by the Compensation Committee. In addition, the Company granted Mr. Sheridan options to purchase 225,000 shares of the Company's Common Stock at an exercise price of \$7.44 per share, the fair market value of the Company's Common Stock on the date of grant. The options become exercisable at the rate of 75,000 options per year on the first three anniversaries of the grant.

Mr. Sheridan recognized no income upon the issuance of the options. When the options are exercised, Mr. Sheridan will recognize ordinary income in an amount equal to the difference between the fair market value of the Common Stock received upon the exercise of the option and the amount paid for the Common Stock. At that time, the Company will be allowed a deduction equal to the amount recognized as ordinary income by Mr. Sheridan. The options provide that to the extent that exercise of an option would give rise to compensation expense that the Company reasonably expects will not be deductible for tax purposes in any given taxable year pursuant to Section 162(m) of the Internal Revenue Code of 1986, as amended, the number of shares as to which the options may be exercised during that taxable year shall be limited.

Under his initial employment contract, Mr. Sheridan purchased 160,000 treasury shares of the Company's Common Stock payable by promissory note. The note is due on the earlier of September 15, 2003 or the termination of Mr. Sheridan's employment. The Company has agreed to reimburse Mr. Sheridan for the interest payable under the note in most circumstances.

Mr. Sheridan is entitled to receive the same benefits as other senior executives of the company, as well as to the use of a car.

In the event that Mr. Sheridan's employment with the Company is terminated without "Cause", or by him for Good Reason (as defined in the employment contract), he will receive twelve months' pay and any previously earned bonuses. In the event that Mr. Sheridan's employment with the Company is terminated for "Cause", or by him other than for Good Reason (as defined in the employment contract), or by his death or disability, he will not be entitled to receive any salary beyond the date of termination, and he will only be entitled to receive previously earned bonuses if the termination is caused by death or disability.

Dr. Callerame has an agreement with the Company granting him severance payments equal to one year's salary if he is terminated in connection with a change of control of the Company as defined in the agreement. The agreement also provides that if he is terminated for any reason other than "Cause" as defined in the agreement, he will be entitled to receive an amount equal to at least six months salary.

The following tables provide information concerning the grant of options in fiscal year 2001 to Executive Officers named in the Summary Compensation Table and options exercised by those officers.

OPTION GRANTS IN THE LAST FISCAL YEAR

	Individual Grants				Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term (\$)	
	Options Granted	% of Total Options Granted to All Employees	Exercise Price (\$)	Expiration Date	5%/year	10%/year
Ralph S. Sheridan	0	N/A	N/A	N/A	N/A	N/A
Joseph Callerame	0	N/A	N/A	N/A	N/A	N/A
Ralph G. Foose	0	N/A	N/A	N/A	N/A	N/A
Edwin Lewis	10,000	2.44%	5.125	12/7/10	33,841	61,250
Robert J. Peters	20,000	4.89%	6.50	9/21/10	111,756	150,000

AGGREGATED OPTION EXERCISES IN LAST FISCAL YEAR AND FISCAL YEAR END OPTION VALUES

	Shares Acquired on Exercise (#)	Value Realized (\$)	Number of Unexercised Options at Fiscal Year End—March 31, 2001 (#)		Value of Unexercised In-The-Money Options at Fiscal Year End—March 31, 2001 (\$)	
			Exercisable	Unexercisable	Exercisable	Unexercisable
			Ralph S. Sheridan	0	0	420,000
Joseph Callerame	0	0	37,500	12,500	—	—
Ralph G. Foose	0	0	25,000	25,000	—	—
Edwin Lewis	0	0	23,334	26,666	51,250	—
Robert J. Peters	0	0	16,000	22,000	—	—

Compensation of Directors

Directors who are also employees of the Company do not receive additional compensation as Directors. Non-Employee Directors (other than the Chairman) receive annual compensation of 2,000 shares of Company Common Stock issuable on January 10th in each year, and options to purchase 7,000 shares of Common Stock at the closing price on the date of the Annual Meeting in each year. No meeting fees or other fees are payable to any Director. See Item 13—Certain Relationships and Related Transactions for additional information concerning certain Directors.

The late Dr. Feshbach was covered by a nonfunded deferred compensation plan (adopted in 1976 and amended in 1977, 1980, 1986, 1990 and 1992) that provided for periodic payments beginning at age 65, based on length of service. During the year, Dr. Feshbach received \$4,752 under the Plan.

Compensation Committee Interlocks and Insider Participation

During the fiscal year ended March 31, 2001, the Company's Compensation Committee consisted of General William Odom and Mr. Carl Vogt. No reportable relationship existed with respect to any member of the Compensation Committee.

Board Compensation Committee Report on Executive Compensation

The Compensation Committee of the Board of Directors (consisting of the two outside Directors whose names appear below this Report) has sole responsibility for compensation issues relating to the

Chief Executive Officer. Compensation practices and policies for the other executive officers are set by the Chief Executive Officer with the advice of the Compensation Committee.

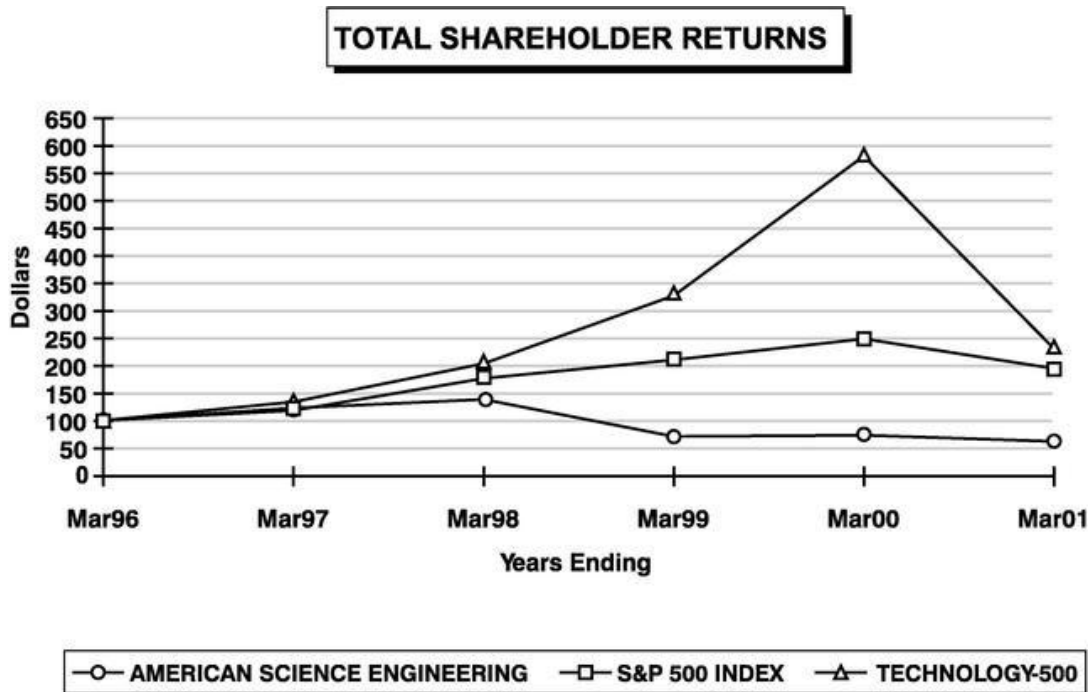
The Compensation Committee has formulated an approach to all executive compensation that emphasizes the establishment of goals and objectives for each executive and for the Company as a whole and ties a substantial portion of executive compensation to the performance of the executive and the Company with respect to these goals and objectives. Base compensation for executive officers (and many other Company employees) is established on the basis of an analysis of salaries received by comparable employees of high-tech and manufacturing companies in the Greater Boston area, company financial results and prospects, and individual contributions relative to the job description and past performance of each officer.

Also in keeping with its performance-based compensation philosophy, in the spring of 1994, the Company implemented an incentive compensation program for all executives who report directly to the Office of the President. Under this new policy, these executives receive a specified portion of their total compensation (ranging from 10% to 50%) based upon two factors: their completion of agreed upon goals and objectives, and the performance of the entire Company.

Report Submitted By: William Odom and Carl Vogt.

Stock Performance Chart

The following chart graphs the performance of the cumulative total return to shareholders (stock price appreciation plus dividends) during the previous five years in comparison to the returns of the Standard & Poor's 500 Composite Stock Price Index and the Standard & Poor's 500 High-Tech Composite Stock Price Index.



Total Return to Shareholders
(Dividends reinvested monthly)

Note: Assumes \$100 invested at the close of trading on the last trading day preceding the first day of the fifth preceding fiscal year (and reinvestment of dividends) in the Company's Common Stock, Standard & Poor's 500 Composite Stock Price Index and the Standard & Poor's 500 High-Tech Composite Stock Price Index.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following chart shows the Company Common Stock beneficially owned by Officers and Directors of the Company on June 15, 2001. Based on information available to it, the Company believes that no other person or entity owned 5 percent or more of the Company's Common Stock on that date.

Name of Beneficial Owner	Amount and Nature of Beneficial Ownership(1)	Percent of Class
Joseph Callera	61,524	1.2%
Ralph G. Foose	35,616	(2)
Hamilton W. Helmer	73,781	1.5%
Roger P. Heinisch	12,500	(2)
Edwin Lewis	27,843	(2)
Donald J. McCarren	81,581	1.6%
William E. Odom	45,000	(2)
Robert J. Peters	22,162	(2)
Ralph S. Sheridan	628,542	11.5%
Carl W. Vogt	47,916	(2)
Directors and Officers as a Group (12 persons)	1,084,029	18.7%

- (1) Includes shares that may be acquired under stock options and warrants exercisable within sixty days after the date of this table, as follows: Dr. Callera—50,000; Mr. Foose—25,000; Mr. Heinisch—8,167; Dr. Helmer—60,000; Mr. Lewis—23,334; Dr. McCarren—61,000; Lt. Gen. (Ret.) Odom—28,000; Mr. Peters—21,000; Mr. Sheridan—420,000; Mr. Vogt—22,750; and all Directors and Officers as a group—756,751. All ownership reported herein includes sole voting and investment power.
- (2) Amount owned constitutes less than one percent.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Mr. Al Gladen, a director of the Company until June, 1999, provided engineering and management services to the Company. The compensation paid to Dabster, Inc., a corporation of which Mr. Gladen is the President, in fiscal years 2001, 2000 and 1999 was approximately \$0, \$20,600 and \$212,000, for services rendered, respectively.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

- (a) The financial statements and schedules listed in the Index to Consolidated Financial Statements and Schedule on page 26 are filed as part of this report, and such Index is incorporated in this Item by reference.
- The exhibits listed in the Exhibit Index on page 47-49 are filed as part of this report, and such Index is incorporated in this Item by reference.
- (b) Reports on Form 8-K. There were no reports on Form 8-K filed during the fourth quarter of the fiscal year covered by this report.

AMERICAN SCIENCE AND ENGINEERING, INC., AND SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND SCHEDULE

(Submitted in answer to Item 8 and Item 14 of Form 10-K, Securities and Exchange Commission)

	<u>PAGE</u>
<u>CONSOLIDATED FINANCIAL STATEMENTS</u>	
Report of Independent Public Accountants	24
Consolidated Balance Sheets—March 31, 2001 and March 31, 2000	25
Consolidated Statements of Operations For the Years Ended March 31, 2001, March 31, 2000 and March 31, 1999	26
Consolidated Statements of Stockholders' Investment For the Years Ended March 31, 2001, March 31, 2000 and March 31, 1999	27
Consolidated Statements of Cash Flows For the Years Ended March 31, 2001, March 31, 2000 and March 31, 1999	28
Notes to Consolidated Financial Statements—March 31, 2001	29
<u>CONSOLIDATED SUPPLEMENTARY FINANCIAL INFORMATION</u>	
Unaudited quarterly consolidated financial data for the years ended March 31, 2001 and March 31, 2000 (Separate Financial Statements of the Company have been omitted since the net assets of its wholly owned subsidiaries are not so restricted with respect to payment of loans, advances and cash dividends to the Company as to require such disclosure.)	39
<u>FINANCIAL STATEMENT SCHEDULE</u>	
Schedule II—Valuation and Qualifying Accounts and Reserves for the years ended March 31, 2001, March 31, 2000 and March 31, 1999	40

Other schedules have been omitted because of the absence of conditions under which they are required or because the required information is given in the financial statements or notes thereto.

Report of Independent Public Accountants

To American Science and Engineering, Inc.:

We have audited the accompanying consolidated balance sheets of American Science and Engineering, Inc. (a Massachusetts corporation) and subsidiaries as of March 31, 2001 and March 31, 2000 and the related consolidated statements of operations, stockholders' investment and cash flows for each of the three years in the period ended March 31, 2001. These consolidated financial statements and the schedule referred to below are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of American Science and Engineering, Inc. and subsidiaries as of March 31, 2001 and March 31, 2000 and the results of their operations and their cash flows for each of the three years in the period ended March 31, 2001 in conformity with accounting principles generally accepted in the United States.

Our audits were made for the purpose of forming an opinion on the basic consolidated financial statements taken as a whole. The schedule listed in the index to consolidated financial statements and schedule is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic consolidated financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic consolidated financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic consolidated financial statements taken as a whole.

/s/ Arthur Andersen LLP

Boston, Massachusetts
July 12, 2001

American Science and Engineering, Inc. and Subsidiaries

Consolidated Balance Sheets

March 31, 2001 and March 31, 2000

Dollars in thousands

	<u>2001</u>	<u>2000</u>
Assets		
Current assets:		
Cash and cash equivalents (Note 1)	\$ 1,206	\$ 1,246
Accounts receivable, net of allowances of \$134 in 2001 and \$250 in 2000 (Note 1)	9,726	6,276
Unbilled costs and fees, net of allowances of \$437 in 2001 and \$447 in 2000 (Note 1)	8,907	9,117
Inventories (Note 1)	13,999	10,446
Deferred income taxes (Notes 1 and 4)	2,475	1,911
Prepaid expenses and other current assets	951	1,118
	<u>37,264</u>	<u>30,114</u>
Non-current deferred income taxes (Notes 1 and 4)		
	823	1,038
Deposits		
	44	44
Equipment and leasehold improvements, net of accumulated depreciation of \$13,071 in 2001 and \$11,000 in 2000 (Note 1)	5,848	6,577
Other assets	131	132
Patents and other intangibles, net of accumulated amortization of \$265 in 2001 and \$165 in 2000 (Note 1)	200	300
	<u>44,310</u>	<u>38,205</u>
Liabilities & Stockholders' Investment		
Current liabilities:		
Line of credit	\$ 6,019	\$ 4,000
Accounts payable	7,427	5,714
Accrued salaries and benefits	1,376	1,136
Accrued warranty costs (Note 1)	348	698
Accrued income taxes (Notes 1 and 4)	438	83
Deferred revenue (Note 1)	722	756
Customer deposits (Note 1)	1,892	2,209
Other current liabilities	2,291	612
	<u>20,513</u>	<u>15,208</u>
Non-current liabilities:		
Deferred revenue (Note 1)	781	1,113
Deferred compensation (Note 9)	95	146
Deferred rent (Note 1)	287	363
	<u>1,163</u>	<u>1,622</u>
Commitments and contingencies (Notes 2, 3, and 9)		
Stockholders' investment: (Notes 5 and 6)		
Preferred stock, no par value		
Authorized—100,000 shares		
Issued—None		
Common stock, \$0.66 ² / ₃ par value		
Authorized—20,000,000 shares		
Issued 5,012,752 shares in 2001 and 4,961,874 shares in 2000		
	3,342	3,308
Capital in excess of par value	18,472	17,907
Retained earnings	1,460	800
	<u>23,274</u>	<u>22,015</u>
Note receivable-officer (Note 6)	(640)	(640)
	<u>22,634</u>	<u>21,375</u>
	<u>\$ 44,310</u>	<u>\$ 38,205</u>

The accompanying notes are an integral part of these consolidated financial statements.

American Science and Engineering, Inc. and Subsidiaries

Consolidated Statements of Operations

For the Years Ended March 31, 2001, March 31, 2000, and March 31, 1999

Dollars in thousands, except per share amounts

	2001	2000	1999
Net sales and contract revenues (Notes 1 and 8)	\$ 67,111	\$ 60,674	\$ 57,295
Cost of sales and contracts (Note 1)	50,892	43,494	38,356
Gross profit	16,219	17,180	18,939
Expenses:			
Selling, general and administrative	9,688	10,480	9,083
Research and development	5,060	5,902	6,380
Total expenses	14,748	16,382	15,463
Operating income	1,471	798	3,476
Other income/(expense):			
Interest, net	(483)	(257)	83
Other, net	(183)	(75)	(150)
Total other income (expense)	(666)	(332)	67
Income before provision for (benefit from) income taxes	805	466	3,409
Provision for (benefit from) income taxes (Note 4)	145	(993)	1,364
Net income	\$ 660	\$ 1,459	\$ 2,045
Income per share—Basic	\$ 0.13	\$ 0.30	\$ 0.43
—Diluted	\$ 0.13	\$ 0.29	\$ 0.40
Weighted Average Shares—Basic	4,978	4,925	4,813
—Diluted	5,006	5,021	5,071

The accompanying notes are an integral part of these consolidated financial statements.

American Science and Engineering, Inc. and Subsidiaries
Consolidated Statements of Stockholders' Investment
For the Years Ended March 31, 2001, March 31, 2000, and March 31, 1999
Amounts in thousands, except share amounts

	Common Stock		Capital in Excess of Par Value	Retained Earnings/ (Accu- mulated Deficit)	Note Receivable Officer	Treasury Stock		Total
	Shares	Amount				Shares	Amount	
Balance, March 31, 1998	4,743,569	\$ 3,162	\$ 16,278	\$ (2,704)	\$ (640)	6,678	\$ (12)	\$ 16,084
Net income	—	—	—	2,045	—	—	—	2,045
Exercise of stock options (Note 6)	108,485	72	743	—	—	—	—	815
Retirement of Treasury stock	(6,178)	(4)	(8)	—	—	(6,678)	12	—
Issuance of stock	31,891	22	381	—	—	—	—	403
Balance, March 31, 1999	4,877,767	3,252	17,394	(659)	(640)	—	—	19,347
Net income	—	—	—	1,459	—	—	—	1,459
Exercise of stock options (Note 6)	18,308	12	79	—	—	—	—	91
Issuance of stock	65,799	44	434	—	—	—	—	478
Balance, March 31, 2000	4,961,874	\$ 3,308	\$ 17,907	\$ 800	\$ (640)	—	\$ —	\$ 21,375
Net income	—	—	—	660	—	—	—	660
Exercise of stock options and related tax benefit	8,158	5	352	—	—	—	—	357
Issuance of stock	42,720	29	213	—	—	—	—	242
Balance, March 31, 2001	5,012,752	\$ 3,342	\$ 18,472	\$ 1,460	\$ (640)	—	\$ —	\$ 22,634

The accompanying notes are an integral part of these consolidated financial statements

American Science and Engineering, Inc. and Subsidiaries

Consolidated Statements of Cash Flows

For the Years Ended March 31, 2001, March 31, 2000 and March 31, 1999

Dollars in thousands

	2001	2000	1999
Cash flows from operating activities:			
Net income	\$ 660	\$ 1,459	\$ 2,045
Adjustments to reconcile net income to net cash provided by (used for) operating activities:			
Depreciation and amortization	2,171	1,434	905
Provisions for contract, inventory, accounts receivable and warranty reserves	664	572	1,135
Deferred (prepaid) income tax	(40)	(1,325)	932
Change in assets and liabilities:			
Accounts receivable	(3,560)	1,532	(1,232)
Unbilled costs and fees	210	(6,743)	816
Inventories	(3,753)	637	(2,513)
Prepaid expenses, other assets, and deposits	168	64	(943)
Accounts payable	1,713	1,258	96
Accrued income taxes	355	(350)	(265)
Customer deposits	(317)	928	130
Deferred revenue	(366)	1,046	(649)
Accrued expenses and other current liabilities	1,473	101	321
Noncurrent liabilities	(127)	68	7
Total adjustments	(1,409)	(778)	(1,260)
Net cash provided by (used for) operating activities	(749)	681	785
Cash flows from investing activities:			
Purchase of property and equipment, net	(1,342)	(2,858)	(3,358)
Acquisition of business assets	—	—	(1,100)
Purchase of patents and intangibles	—	(10)	(40)
Cash used in investing activities	(1,342)	(2,868)	(4,498)
Cash flows from financing activities:			
Proceeds from borrowings (Note 11)	2,019	3,000	1,000
Proceeds from exercise of stock options	48	91	815
Principal payments of capital lease obligations	(16)	(24)	(26)
Cash provided by financing activities	2,051	3,067	1,789
Net increase/(decrease) in cash and cash equivalents	(40)	880	(1,924)
Cash and cash equivalents at beginning of year	1,246	366	2,290
Cash and cash equivalents at end of year	\$ 1,206	\$ 1,246	\$ 366
Supplemental disclosures of cash flow information:			
Interest paid	\$ 437	\$ 346	\$ 43
Income taxes paid	95	791	667
Non-cash transactions:			
Issuance of stock in lieu of fees	\$ 242	\$ 478	\$ 403
Capital lease obligation for equipment	—	—	24

The accompanying notes are an integral part of these consolidated financial statements.

American Science and Engineering, Inc. and Subsidiaries

Notes to Consolidated Financial Statements

March 31, 2001

1. Nature of Operations and Summary of Significant Accounting Policies

American Science and Engineering, Inc. (the Company), is engaged in the development and manufacture of sophisticated X-ray inspection systems for critical detection and security screening solutions for sale primarily to U.S. and foreign government agencies.

Use of Estimates: The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Principles of Consolidation: The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Reclassifications: Certain amounts in the prior period financial statements have been reclassified to conform with the current period presentation.

Cash and Cash Equivalents: The Company considers all investments with original maturities of 90 days or less to be cash equivalents. Cash and cash equivalents are carried at cost, which approximates fair market value at year end 2001 and 2000. The Company has repurchase agreements with its banks. The repurchase agreements are collateralized by investments principally consisting of U.S. Government Agency securities in the amount of at least 100% of such obligation.

Inventories: Inventories consist of material, labor and manufacturing overhead and are recorded at the lower of cost or net realizable value. Cost is determined by the first-in, first-out method.

The components of inventories at March 31, 2001 and 2000 were as follows (dollars in thousands):

	2001	2000
Raw materials and completed subassemblies	\$ 7,839	\$ 6,416
Work-in-process	6,160	4,030
	\$ 13,999	\$ 10,446

The Company periodically reviews quantities of inventory on hand and compares these amounts to expected usage of each particular product or product line. The Company records as a charge to cost of sales any amounts required to reduce the carrying value to net realizable value.

Equipment and Leasehold Improvements: The Company provides for depreciation and amortization of its fixed assets, principally equipment, using straight-line and accelerated methods over estimated useful lives of 3-10 years. Expenditures for normal maintenance and repairs are charged to expense as incurred. Significant additions, renewals or betterments that extend the useful lives of the assets are capitalized. The cost and accumulated depreciation applicable to equipment and leasehold improvements sold or otherwise disposed of are removed from the accounts, and any resulting gain or loss is included in the consolidated statements of operations.

Warranty Costs: The Company generally provides a one-year parts and labor warranty with the purchase of equipment. The anticipated cost for this one-year warranty is accrued for at the time of the

sale and is recorded as Accrued warranty costs, or is included in contract costs for contracts accounted for using the percentage of completion method.

Revenue Recognition: Revenues are generally recorded on cost reimbursable and long-term fixed price contracts as costs are incurred using the percentage of completion method. Percentages-of-completion are determined by relating the actual costs of work performed to date for each contract to its estimated final costs. Revisions in costs and profit estimates are reflected in the period in which the facts causing the revision become known.

Certain other fixed price contracts are recognized as shipments are made. Profit on fixed price contracts is determined by applying the estimated average profit rate to the contract value of the items shipped.

Certain contracts require payments from the customer upon execution of the agreement which are included in customer deposits. Individual customer deposits are reduced by the amount of revenue recognized on the contract until a zero balance is reached. Revenue recognized in excess of billings or customer deposits under the contracts is included in unbilled costs and fees in the accompanying balance sheet.

For all fixed price contracts, if a loss is anticipated on the contract, provision is made in the period in which such losses are determined.

Under the terms of most of its cost reimbursement contracts, the Company is not permitted to bill customers a specified portion of the contract value until completion. Such retainages (approximately \$114,000 in 2001 and \$253,000 in 2000) result from both commercial contract retentions and government contract withholdings generally for 15% of fees, as well as difference between the actual and provisional indirect cost billing rates. Retainages are included in the accompanying consolidated balance sheets as components of unbilled costs and fees.

During the fourth quarter of 2001, effective as of April 1, 2000, the Company adopted Securities and Exchange Commission (SEC) Staff Accounting Bulletin (SAB) No. 101, "Revenue Recognition in Financial Statements." The Company recognizes sales at the time of shipment of the system to the customer. The costs of installation at the customer's site are accrued at the time of shipment. Management believes the customer's post delivery acceptance provisions and installation are routine. The Company has never failed to successfully complete a system installation. Should an installation not be successfully completed, the contractual provisions do not provide for forfeiture of refund. Installation is non-complex and does not require specialized skills and the related costs are predictable and insignificant to the total purchase price. The Company has demonstrated a history of customer acceptance subsequent to shipment and installation of these systems.

Included in accounts receivable and unbilled costs and fees at March 31, 2001 and 2000 are \$5,223,000 and \$4,084,000, respectively, attributable to both prime and subcontracts with the US Government.

Deferred Revenue: The Company offers to its customers extended warranty and service contracts. The coverage period of these contracts will typically range from one to five years, with payments in advance recorded as Deferred Revenue. Approximately 73% of the deferred revenue included in the accompanying 2001 balance sheet will be recognized within 2 years.

Customer Deposits: For most international orders, the Company generally includes, as part of its terms and conditions, an advance deposit with order acceptance. For long-term international contracts, the

Company will generally include milestone payments tied to a specific event and/or passage of time. These deposit amounts are recorded as a liability under "Customer Deposit" until reduced by revenue recognized against the specific contract. As of March 31, 2001 and 2000, total customer deposits amounted to \$1,892,000 and \$2,209,000, respectively.

Deferred Rent: The Company has a lease for its office and manufacturing facilities, which includes escalation clauses. Generally accepted accounting principles require normalization of the rental expense over the life of the lease, resulting in deferred rent being reflected in the accompanying consolidated balance sheets.

Research and Development: Research and development costs are expensed as incurred.

Fair Value of Financial Instruments: The Company's financial instruments consist primarily of cash and cash equivalents, accounts receivable and accounts payable. The carrying amounts of the Company's cash and cash equivalents, accounts receivable and accounts payable approximate fair value due to their short-term nature.

Income Per Common and Common Equivalent Shares: Basic earnings per common share is computed by dividing net income available to common stockholders by the weighted average number of shares of common stock outstanding during the year. No dilution for any potentially dilutive securities is included. Diluted earnings per share include the dilutive impact of options and warrants using the average share price of the Company's common stock for the period.

(in 000's)	Year Ended		
	March 31, 2001	March 31, 2000	March 31, 1999
Weighted average number of common shares outstanding—basic	4,978	4,925	4,813
Assumed exercise of stock options, using the treasury stock method	28	96	258
Weighted average number of common and potential common shares outstanding—diluted	5,006	5,021	5,071

Options to purchase 1,857,493 shares and 1,490,409 shares for the year ended March 31, 2001 and 2000 were outstanding but were not included in the computation of diluted earnings per share because the price of the options was greater than the average market price of common stock for the period reported.

Income Taxes: The Company accounts for income taxes in accordance with Statement of Financial Accounting Standards (SFAS) No. 109, "Accounting for Income Taxes." Accordingly, the Company recognizes deferred income taxes based on the expected future tax consequences of differences between the financial statement basis and the tax basis of assets and liabilities, calculated using enacted tax rates in effect for the year in which the differences are expected to be reflected in the tax return. The Company records a valuation allowance against any net deferred tax assets if it is more likely than not that they will not be realized.

New Accounting Pronouncements: In June 1998, the Financial Accounting Standards Board issued SFAS 133, "Accounting for Derivative Instruments and Hedging Activities" (SFAS 133). The Statement establishes accounting and reporting standards requiring that every derivative instrument (including

certain derivative instruments embedded in other contracts and for hedging activities) be recorded in the balance sheet as either an asset or liability measured at its fair value. SFAS 133 requires that changes in the derivative's fair value be recognized currently in earnings unless specific hedge accounting criteria are met. Special accounting for qualifying hedges allows a derivative's gains and losses to offset related results on the hedged item in the income statement, and requires that a company must formally document, designate, and assess the effectiveness of transactions that receive hedge accounting. SFAS 133 is effective for all fiscal quarters of fiscal years beginning after June 15, 2000. The Company adopted SFAS 133 as of April 1, 2001. The adoption of SFAS 133 did not have a material impact on the financial statements..

2. Lease Agreements

The Company leases various office and manufacturing facilities under noncancelable operating leases. Additionally, the Company has entered into a sublease agreement (as lessor) as of May 2000 in regards to certain manufacturing and office space. The Company incurred \$1,053,000, \$901,000, and \$649,000 of rent expense in 2001, 2000, and 1999 respectively. The security deposits on these leases amount to \$142,000.

Future minimum rental payments under the Company's operating leases, excluding real estate taxes, insurance and operating costs paid by the Company required over the initial terms of the leases are as follows (in thousands):

Year Ending March 31,	
2002	\$ 1,066
2003	987
2004	928
2005	797
2006	—
Thereafter	—
	\$ 3,778

Future minimum rental receivables under the Company's operating sub-lease, excluding real estate taxes, insurance and operating costs paid by the Company required over the terms of the sublease is as follows (in thousands):

Year Ending March 31,	
2002	\$ 76
2003	60
2004	—
2005	—
2006	—
Thereafter	—
	\$ 136

American Science and Engineering, Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

March 31, 2001

3. Line of Credit

In November 1999, the Company expanded its domestic credit facilities with State Street Bank and Trust Company, Fleet National Bank, and the Export Import Bank of the United States (ExIm). The expanded line of credit, which is secured by accounts receivable from ongoing customers as well as inventory, has two components. The first component includes a \$20,000,000 revolving line of credit to support working capital and the issuance of standby letters of credit; the second component includes a \$15,500,000 ExIm guaranteed export credit agreement to support foreign export contracts. Monthly interest payments on this line of credit are at the prime interest rate. There is a quarter percent (0.25%) commitment fee on the unused portion of the line. As of March 31, 2000 there was \$4,000,000 outstanding under the line of credit facility.

The Company replaced the credit facilities with State Street Bank, Fleet National Bank and ExIm with two new credit agreements with HSBC Bank USA ("HSBC"). The first agreement is for a \$10 million domestic revolving credit facility to support the Company's routine working capital and standby letter of credit needs. The second is a \$30 million export credit and security agreement, guaranteed by ExIm, to support the Company's overseas contract, trade finance and working capital needs. The credit facility bears an interest rate at the HSBC Bank USA prime rate (8.0% at March 31, 2001) or LIBOR plus 2.0% at the Company's option. The agreements expire on November 30, 2002.

As of March 31, 2001, there was \$6,019,000 of borrowings against the line. As of March 31, 2001 there were \$21,846,000 of outstanding letters of credit in effect against the credit facilities. The credit agreements are collateralized by certain assets of the Company, and contain certain restrictions, including limitations on the amount of distributions that can be made to stockholders, encumbrances of assets, and loans which can be made to officers, and requires the Company to meet certain financial covenants, including among others, minimum tangible net worth and debt service coverage. As of March 31, 2001, the Company was in compliance with all of the financial covenants.

4. Income Taxes

The provision (benefit) for income taxes for the years ended March 31, 2001, March 31, 2000, and March 31, 1999 consisted of the following (in thousands):

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Current:			
Federal	165	238	\$ 83
State	20	94	349
	<u>185</u>	<u>332</u>	<u>432</u>
Deferred/(Prepaid):			
Federal	(37)	(1,223)	975
State	(3)	(102)	(43)
	<u>(40)</u>	<u>(1,325)</u>	<u>932</u>
Change in valuation allowance	<u>—</u>	<u>—</u>	<u>—</u>
Total	<u>145</u>	<u>\$ (993)</u>	<u>\$ 1,364</u>

The difference between the total expected provision (benefit) for income taxes computed by applying the statutory federal income tax rate to income before provision (benefit) for income taxes and the

recorded provision (benefit) for income taxes for the three years in the period ended March 31, 2001 follows (in thousands):

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Provision for income taxes at statutory rate	\$ 274	\$ 174	\$ 1,159
State tax provision (benefit) net of federal effect	13	(5)	202
Permanent non-deductible expenses	30	32	30
Expiration of tax credits	6	—	—
Change in valuation allowance	—	—	—
Effect of FSC and EIE exclusion	(206)	(430)	(19)
R&D tax credit	—	(700)	—
Other	28	(64)	(8)
	<u>\$ 145</u>	<u>\$ (993)</u>	<u>\$ 1,364</u>

The significant components of the net deferred tax asset at March 31, 2001 and 2000 follow (in thousands):

	<u>2001</u>		<u>2000</u>	
	<u>Current</u>	<u>Non-current</u>	<u>Current</u>	<u>Non-current</u>
Assets:				
Net operating loss carryforwards	\$ 548	\$ —	\$ 8	\$ —
Accounts receivable and unbilled costs and fees	185	—	234	—
Inventory	261	—	222	—
Deferred revenue	—	523	—	551
Accrued vacation	299	—	261	—
Accrued warranty costs	185	—	256	—
Research & Development and other tax credits	822	—	855	—
Other	175	300	75	487
	<u>\$ 2,475</u>	<u>\$ 823</u>	<u>\$ 1,911</u>	<u>\$ 1,038</u>
Net deferred income tax assets	<u>\$ 2,475</u>	<u>\$ 823</u>	<u>\$ 1,911</u>	<u>\$ 1,038</u>

The Company has available general business and other credits of approximately \$708 expiring at various times through 2018.

5. Common Stock

Stock Option Plans: The Company has various stock option plans for directors, officers, and employees. The Company has the following stock option plans outstanding as of March 31, 2001: 1993, 1994-1995 and 1996 Stock Option Plan for Non-employee Directors; two CEO Employment Agreement Plans; 1995 Combination Plan; 1997 and 1998 Non-Qualified Option Plan; 1994-95 Stock Option Plan for New Employees, a 1999 Combination Plan, and a 2000 Combination Plan. There were 2,728,000 shares authorized under these plans. Vesting periods on these plans range from immediate vesting to four years. Options under these plans are granted at fair market value and generally become exercisable within one to two years of the grant date and terminate ten years from the date of grant. In addition, the Company has a common stock installment purchase plan under which the Board of Directors may grant key personnel the

right to purchase shares of the Company's common stock at fair market value and to pay the purchase price in twelve equal monthly installments. As of March 31, 2001, no shares have been reserved or granted under this plan.

The Company has instituted two common stock purchase plans. The Executive Equity Incentive Plan allows an executive officer of the Company to buy original issue Company common stock in any dollar amount up to the gross amount of the annual bonus granted to the Officer and to receive half the number of shares purchased in restricted stock which vests after 3 years. If the employee leaves the Company prior to 3 years then the shares revert back to the Company. As of both March 31, 2001 and 2000, 2,251 shares have been reserved and restricted under this plan. The Reload Option Plan allows any eligible employee designated by the Board of Directors to receive new stock options (at an exercise price equal to the fair market value of the common stock on the date of sale of the stock) for every share of Company common stock sold or used to exercise stock options.

Pro Forma Stock-based Compensation Expense: As permitted by SFAS No. 123, "Accounting for Stock-Based Compensation", the Company has elected to continue to apply Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," to account for its stock-based compensation plans. Had compensation cost for awards in 2001, 2000 and 1999 under the Company's stock-based compensation plans been determined based on the fair value at the grant dates consistent with the method set forth under SFAS No. 123, the effect on the Company's net income and earnings per share would have been as follows:

In thousands except per share amounts	2001	2000	1999
	<u> </u>	<u> </u>	<u> </u>
Net income:			
As reported	\$ 660	\$ 1,459	\$ 2,045
Pro forma	(371)	186	86
Income per share—Basic:			
As reported	\$ 0.13	\$ 0.30	\$ 0.43
Pro forma	(0.07)	0.04	0.02
Income per share—Diluted:			
As reported	\$ 0.13	\$ 0.29	\$ 0.40
Pro forma	(0.07)	0.04	0.02

The fair value of each option granted was estimated on the grant date using the Black-Scholes option pricing model with the following weighted average assumptions: risk-free interest rates of 5.5% to 6.75%, 5.97% to 6.83%, and 4.83% to 5.79% for 2001, 2000, and 1999, respectively, and expected life of 7, 5 and 5 years for 2001, 2000 and 1999, respectively, expected volatility of 56%, 55%, and 47% for 2001, 2000, and 1999, respectively, and an expected dividend yield of 0% for all three years.

Stock Option Activity A summary of the Company's stock option activity is as follows:

	2001		2000		1999	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Options outstanding, beginning of year	1,784,399	\$ 9.45	1,338,798	\$ 10.60	1,116,030	\$ 9.59
Options granted	409,350	6.30	672,917	7.75	395,850	12.58
Options exercised	(8,158)	6.62	(18,308)	5.99	(108,485)	7.39
Options expired	(160,458)	10.01	(209,008)	11.60	(64,597)	10.74
Options outstanding, end of year	2,025,133	8.78	1,784,399	9.45	1,338,798	10.60
Options exercisable	1,363,251	9.60	1,056,785	10.45	857,283	9.54
Options available						
For grant	469,890		469,183		333,292	
Weighted average fair value per share of options granted during the year		3.96		4.01		5.86

The following summarizes certain data for options outstanding at March 31, 2001:

	Number of Shares	Range of Exercise Prices	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life
Options outstanding, End of year:	168,140	\$ 3.25–\$5.25	\$ 4.24	4.70
	1,104,250	5.25–8.25	6.90	8.20
	284,493	8.25–11.38	10.74	6.50
	468,250	11.38–16.25	13.70	6.20
	2,025,133		\$ 8.78	7.20
Options Exercisable:	140,440	\$ 3.25–\$5.25	\$ 4.11	
	502,569	5.25–8.25	6.98	
	279,493	8.25–11.38	10.73	
	440,749	11.38–16.25	13.70	
	1,363,251		\$ 9.60	

On April 15, 1998, the Company announced that its Board of Directors adopted a Shareholders' Rights Plan (the Plan) and declared a dividend of one preferred stock purchase right for each outstanding share of common stock. The dividend was payable to all holders of record of shares of common stock as of the close of business on April 17, 1998. The rights become exercisable ten days after a person or group acquires 15% or more of the Company's common stock, and in certain other situations described in the Plan. As of March 31, 2001, no options have been granted or exercised under this plan.

Notes to Consolidated Financial Statements (Continued)

March 31, 2001

6. Note Receivable from Officer

In January 1994, the Company's Chief Executive Officer purchased 160,000 shares of common stock at a price of \$4.00 per share (the fair market value) financed under a note agreement for \$640,000 from the Company. This note accrues interest at a rate of 6.26% and will be payable on or before September 15, 2003 or 90 days after termination, as defined. As of March 31, 2001 no interest has been received or paid against this note.

7. Related Party Transactions

Mr. Al Gladen, a director of the Company until June 1999, provided engineering and management services to the Company. The compensation paid to Dabster, Inc., a corporation of which Mr. Gladen is the President, in fiscal years 2000 and 1999 was approximately \$20,600 and \$212,000 for services rendered, respectively. No payments were made to Dabster, Inc. or Mr. Gladen during fiscal 2001.

8. Business Segment Information

In accordance with the provisions of SFAS No. 131 "Disclosures about Segments of an Enterprise and Related Information", the Company has determined that it has only one operating segment, the X-ray product segment. This includes X-ray detection and imaging products used primarily for the detection of illegal drugs, terrorist explosives, and smuggled goods. The equipment is purchased by sophisticated government and commercial clients who place a premium on the detection of organic material in complex backgrounds and the ability to see the contents of containers with precision.

Geographical Data: All of the Company's export sales originate from the U.S. Less than 1% of the Company's assets are in any foreign country. The following table shows the breakdown of Net Sales and Contract revenues to foreign and domestic customers and the major regions of export activity based upon customer country of domicile.

(dollars in thousands):

	2001	2000	1999
Domestic	\$ 31,695	\$ 27,360	\$ 26,274
Export	\$ 35,416	\$ 33,314	\$ 31,021
Percent of Export Revenue by Major Region:			
Middle East & Africa	66.5%	48.7%	54.2%
Mexico	6.9	38.1	29.6
Europe	13.8	5.7	5.0
Pacific Rim	12.7	4.1	10.5
All Other	0.1	3.4	0.7

Major Customers: Sales to major customers (representing in excess of 10% of consolidated revenues) consisted of X-ray product sales of the following:

Fiscal 2001: \$16,768,000, \$12,155,000 and \$7,850,000 to three customers

Fiscal 2000: \$12,644,000 and \$11,779,000 to two customers.

Fiscal 1999: \$13,306,000, \$9,168,000, \$6,853,000 and \$6,027,000 to four customers.

9. Commitments and Contingencies

Deferred Compensation: The Company has an unfunded deferred compensation plan, originally adopted in 1976 and amended at various times, for certain current and former directors. This plan provides for periodic payments beginning at age 65, the amount of which depends on length of service. The Company paid \$50,291 in 2001, \$4,752 in 2000, and \$4,752 in 1999 under this deferred compensation plan.

Litigation: In May, 1996, Vivid Technologies, Inc. (Vivid) filed a civil action against the Company, seeking *inter alia* a declaratory judgment that Vivid had not infringed upon certain of the Company patents relating to its backscatter technology. The Company responded to Vivid's claim denying their allegations and counter-claiming that Vivid infringed upon one or more of the Company's patents. On May 12, 1997, Vivid filed a proposed Amended Complaint narrowing its claim and seeking *inter alia* a declaratory judgment that Vivid had not infringed on AS&E United States Patent number 5,253,283, entitled "Inspection Method and Apparatus with Single Color Pixel Imaging." The Company denies Vivid's assertions, and contends that Vivid's claims are without merit and that Vivid is not entitled to the relief sought. The Company served Vivid with discovery requests to which Vivid failed to respond. In September 1997, Vivid filed a motion seeking a stay of discovery and a motion for a summary judgement. The Company responded by seeking a denial or stay of Vivid's motion for summary judgement until discovery could be completed. The Court denied the Company's motion and declared that Vivid is not infringing on the patent. The Company is currently appealing the Court's award of summary judgement and its denial of discovery. The Company appealed and the Court of Appeals overturned the District Court's decision ruling that the District Court's refusal to accept AS&E's claim that Vivid was infringing on AS&E's patent "exceeded the district court's discretionary authority." The Court of Appeals also reversed the district court's finding on summary judgment that Vivid did not infringe on AS&E's patent, as well as the district court's denial of AS&E's request for discovery to oppose Vivid's summary judgment motion. Based on discussions with legal counsel, the Company does not expect the outcome of this litigation to have a material impact to its financial position or results of operations.

In February 2000, Heimann Systems GmbH (Heimann) filed a civil action in U.S. District Court against the Company alleging that the Company infringed a Heimann patent relating to a mobile vehicle and x-ray examining device. The Company denies Heimann's assertions and believes that Heimann's claims are without merit. Based on discussions with legal counsel, the Company does not expect the outcome of this litigation to have a material impact to its financial position or results of operations.

American Science and Engineering, Inc. and Subsidiaries

Unaudited quarterly consolidated financial data

For the years ended March 31, 2001 and March 31, 2000

Dollars in thousands, except per share amounts

	2001 by quarter				2000 by quarter			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Net sales and contract revenues	\$15,063	\$16,466	\$17,018	\$18,564	\$14,316	\$15,459	\$17,217	\$13,682
Gross profit	3,728	4,053	4,190	4,248	4,445	4,534	4,945	3,256
Operating Income	198	460	372	441	346	657	1,111	(1,316) ⁽¹⁾
Net income \$	29 \$	153 \$	211 \$	267 \$	192 \$	390 \$	601 \$	276 ⁽²⁾
Net income per share								
—Basic (Note 1)	\$ 0.01	\$ 0.03	\$ 0.04	\$ 0.05	\$ 0.04	\$ 0.08	\$ 0.12	\$ 0.06
—Diluted (Note 1)	\$ 0.01	\$ 0.03	\$ 0.04	\$ 0.05	\$ 0.04	\$ 0.08	\$ 0.12	\$ 0.05

(1) The fourth quarter 2000 operating loss is due primarily to three factors (a) lower revenues due to delays in planned awards by government customers, (b) continuance of significant R&D investments on new product development and product enhancements, and (c) continued recruiting, training and infrastructure investment in a global technical support capability.

(2) Fourth quarter 2000 net income includes a substantial, non-recurring research and development tax credit, as well as the tax benefit relating to the fourth quarter operating loss.

SCHEDULE II

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARIES
VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
FOR THE YEARS ENDED MARCH 31, 2001, MARCH 31, 2000, and MARCH 31, 1999

Description—Allowance for Doubtful Accounts

Dollars in thousands

	Balance at Beginning of Year	Charged to Costs and Expenses	Deductions from Reserves	Balance At End of Year
2001	\$ 250	\$ 110	\$ 226	\$ 134
2000	\$ 259	\$ 150	\$ 159	\$ 250
1999	\$ 116	\$ 228	\$ 85	\$ 259

Description—Allowances for Unbilled Cost and Fees

Dollars in thousands

	Balance at Beginning of Year	Charged to Costs and Expenses	Deductions from Reserves	Balance At End of Year
2001	\$ 447	\$ —	\$ 10	\$ 437
2000	\$ 447	\$ —	\$ —	\$ 447
1999	\$ 549	\$ —	\$ 102	\$ 447

EXHIBIT INDEX

Exhibit Number	Description of Exhibit (and Statement of Incorporation by Reference, If Applicable)	Page Number (If Filed)
(3)(a)	Restated Articles of Organization of the Company (filed as an Exhibit to Company's Annual Report on Form 10-K for the year ended September 30, 1967, and incorporated herein by reference)	
(3)(b)	Articles of Amendment to Restated Articles of Organization of Company (filed as Exhibit 2(a)(ii)(B) to the Company's Registration Statement on Form S-7, No. 2-56452, filed May 25, 1976, and incorporated herein by reference)	
(3)(c)	Articles of Amendment to Restated Articles of Organization of Company (filed as Exhibit 12 to the Company's Annual Report on Form 10-K for the year ended March 31, 1976, and incorporated herein by reference)	
(3)(d)	By-laws of Company, as amended (filed as Exhibit 2(a)(iii) to Company's Registration Statement on Form S-7, No. 2-56452, filed May 25, 1976, and incorporated herein by reference)	
(4)	Shareholders Rights Plan (filed as Exhibit to the Company's filing on Form dated , 1992 and incorporated herein by references)	
(10)(a)(ii)	Deferred Compensation Plan for Herman Feshbach (filed as Exhibit 20 to the Company's Annual Report on Form 10-K for the year ended March 31, 1976, and incorporated herein by reference)	
(10)(a)(iv)	Amendment to Deferred Compensation Plans for Ismael Escobar and Herman Feshbach (filed as Exhibit 7 to the Company's Annual Report on Form 10-K for the fiscal year ended March 31, 1980, and incorporated herein by reference)	
(10)(a)(v)	Deferred Compensation Plan for Marie Spaulding (filed as Exhibit (10)(a)(v) to the Company's Annual Report on Form 10-K for the year ended March 31, 1988, and incorporated herein by reference)	
(10)(b)(I)	1981 Incentive Stock Option Plan (filed as Exhibit (10)(b)(I) to the Company's Annual Report on Form 10-K for the year ended March 31, 1988, and incorporated herein by reference)	
(10)(b)(iii)	1984 Incentive Stock Option Plan (filed as Exhibit (10)-3 to the Company's Annual Report on Form 10-K for the year ended March 31, 1985, and incorporated herein by reference)	
(10)(b)(iv)	Amendment 1 to 1981 Incentive Stock Option Plan (filed as Exhibit (10)(b)(iv) to the Company's Annual Report on Form 10-K for the year ended March 31, 1988, and incorporated herein by reference)	
(10)(b)(v)	Amendment 1 to 1984 Incentive Stock Option Plan (filed as Exhibit (10)(b)(v) to the Company's Annual Report on Form 10-K for the year ended March 31, 1988, and incorporated herein by reference)	
(10)(b)(vi)	1987 General Stock Option Plan (filed as an exhibit to the Company's current report on Form 8-K for the month of October 1987, and incorporated herein by reference)	
(10)(b)(ix)	1996 Stock Plan For Non-Employee Directors (filed as Exhibit 99 to the Company's Registration Statement on Form S-8, File No. 333-09257, filed on July 31, 1996, and incorporated herein by reference)	

- (10)(b)(x) Executive Equity Incentive Plan (filed as Exhibit 99 to the Company's Registration Statement on Form S-8, File No. 333-27929, filed on May 28, 1997 and incorporated herein by reference)
- (10)(b)(xi) Reload Option Plan (filed as Exhibit (10)(b)(xi) to the Company's Annual Report on Form 10-K for the year ended March 28, 1997 and incorporated herein by reference)
- (10)(b)(xii) 1997 Non-Qualified Stock Option Plan (filed as Exhibit 99 to the Company's Registration Statement on Form S-8, File No. 333-27927, filed on May 28, 1997 and incorporated herein by reference)
- (10)(b)(xiii) 1998 Non-Qualified Stock Option Plan (filed as Exhibit (10) (b) (xiii) to the Annual Report on Form 10-K for the year ended March 31, 1998, and incorporated herein by reference)
- (10)(b)(xv) Employment Agreement between the Company and Dr. Joseph Callerame dated May 6, 1998, (filed as Exhibit (10) (b) (xv) to the Annual Report on Form 10-K for the year ended March 31, 1998, and incorporated herein by reference)
- (10)(b)(xvii) Employment Agreement between the Company and Lee C. Steele dated September 29, 1997, (filed as Exhibit (10) (b) (xvii) to the Annual Report on Form 10-K for the year ended March 31, 1998, and incorporated herein by reference)
- (10)(c)(i) Lease of Billerica property (filed as Exhibit 10(c) to the Company's Annual Report on Form 10-K for the year ended March 31, 1995 and incorporated herein by reference)
- (10)(c)(ii) Amendment to Lease of Billerica property (filed as to the Company's Annual Report on Form 10-K for the year ended March 28, 1997 and incorporated herein by reference)
- (10)(c)(iii) Lease of 33 Manning Road, Billerica, MA
- (10)(c)(iv) 1999 Combination Stock Option Plan (filed as Exhibit 99 to the Company's Registration Statement on Form S-8, File No 333-91801, filed on November 30, 1999 and incorporated herein by reference).
- (10)(c)(v)* Employment Agreement between the Company and Ralph S. Sheridan dated September 25, 1999.
- (10)(c)(vi)* Employment Agreement between the Company and Ralph G. Foose dated September 1, 1999.
- (10)(c)(vii)* Employment Agreement between the Company and Edwin L. Lewis dated February 3, 2000.
- (10)(c)(viii) Sub-lease from the Company of 30 Manning Road, Billerica, Massachusetts (filed as Exhibit (10)(c)(viii) to the Annual Report on Form 10-K for the year ended March 31, 2000, and incorporated herein by reference).
- (10)(c)(ix)* Employment Agreement between the Company and Richard Mastronardi dated August, 2000
- (10)(d)(i) Export Credit and Security Agreement between American Science & Engineering and HSBC Bank USA
- (10)(d)(ii) Revolving Loan and Security Agreement between American Science & Engineering, Inc. and HSBC Bank USA

- (22) Identification of Company's subsidiary, AS&E Radiography, Inc., incorporated in Massachusetts (filed as Exhibit (22) to Company's Annual Report on Form 10-K for the year ended March 31, 1988, and incorporated herein by reference)
- (23) Consent of Independent Public Accountants

*

Contract with Management

QuickLinks

[SUMMARY COMPENSATION](#)

[OPTION GRANTS IN THE LAST FISCAL YEAR](#)

[AGGREGATED OPTION EXERCISES IN LAST FISCAL YEAR AND FISCAL YEAR END OPTION VALUES](#)

[AMERICAN SCIENCE AND ENGINEERING, INC., AND SUBSIDIARIES INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND SCHEDULE](#)

[Report of Independent Public Accountants](#)

[American Science and Engineering, Inc. and Subsidiaries Consolidated Balance Sheets March 31, 2001 and March 31, 2000 Dollars in thousands](#)

[American Science and Engineering, Inc. and Subsidiaries Consolidated Statements of Operations For the Years Ended March 31, 2001, March 31, 2000, and March 31, 1999 Dollars in thousands, except per share amounts](#)

[American Science and Engineering, Inc. and Subsidiaries Consolidated Statements of Cash Flows For the Years Ended March 31, 2001, March 31, 2000 and March 31, 1999 Dollars in thousands](#)

[American Science and Engineering, Inc. and Subsidiaries Notes to Consolidated Financial Statements March 31, 2001](#)

[American Science and Engineering, Inc. and Subsidiaries Unaudited quarterly consolidated financial data For the years ended March 31, 2001 and March 31, 2000](#)

[SCHEDULE II](#)

[AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARIES VALUATION AND QUALIFYING ACCOUNTS AND RESERVES FOR THE YEARS ENDED MARCH 31, 2001, MARCH 31, 2000, and MARCH 31, 1999](#)

[Description—Allowance for Doubtful Accounts](#)

[Dollars in thousands](#)

[Description—Allowances for Unbilled Cost and Fees](#)

[Dollars in thousands](#)

[SIGNATURES](#)

[EXHIBIT INDEX](#)

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference of our reports included in this Form 10-K, into the Company's previously filed Registration Statement Nos. 033-61903, 333-05795, 333-05797, 333-09257, 333-13259, 333-27927, 333-27929, 333-69717, 333-91801, and 333-53842.

Boston, Massachusetts
July 12, 2001

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