



FORM 10-K405

AMERICAN SCIENCE ENGINEERING INC - ASEI

Exhibit:

Filed: June 26, 1997 (period: March 28, 1997)

Annual report. The Regulation S-K Item 405 box on the cover page is checked

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SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934 [FEE REQUIRED]

FOR THE FISCAL YEAR ENDED MARCH 28, 1997

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

(I.R.S. Employer Identification No.)

829 MIDDLESEX TURNPIKE, BILLERICA, MASSACHUSETTS
(Address of principal executive offices)

01821
(Zip Code)

Registrant's telephone number, including area code (508) 262-8700

Securities registered pursuant to Section 12(b) of the Act:

Title of each class -----	Name of each exchange on which registered -----
Common Stock (\$.66 2/3 par value)	American Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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
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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. X

The aggregate market value of voting stock held by non-affiliates of the registrant on June 6, 1997 was \$43,421,660

4,585,209 shares of Registrant's Common Stock were outstanding on June 6, 1997.

The Exhibit Index is located on page 46
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PART I

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ITEM 1. BUSINESS

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American Science and Engineering, Inc., a Massachusetts corporation formed in 1958 (together with its subsidiary, the "Company"), develops, produces, markets, sells and provides research and engineering services with respect to X-ray inspection systems.

[] X-RAY PRODUCTS

The Company provides a full line of X-ray detection and imaging products used primarily for the detection of illegal drugs and terrorist explosives. This equipment is purchased by sophisticated government and commercial clients who place a premium on the detection of organic material in complex backgrounds. The Company utilizes proprietary transmission and backscatter X-ray detection to provide differentiation of bombs, drugs and contraband in camouflaged environments. The range of application includes border control and manifest verification, protection of high risk government offices, mail and parcel screening, correctional facility security, military security, executive security, aviation security, and special event security (e.g. Olympics, UN 50th anniversary and World Cup Soccer). The Company's market is driven by domestic and global trends toward increasing use of terrorism for political purposes and the continued global proliferation of drug smuggling.

The surge in cross border drug smuggling has created a requirement for cargo and vehicle inspection. With the assistance of the U.S. Department of Defense and U.S. Customs, the Company has developed the CargoSearch(TM) line of X-ray inspection equipment. Based on the success of the CargoSearch(TM) prototype at Otay Mesa, CA, the first commercial installation of CargoSearch(TM) is on line at Calexico, CA, for U.S. Customs to inspect trucks for hidden drugs on the Mexican border and six additional installations are expected to be made along the border over the next 18 months. The CargoSearch(TM) product family includes fixed site inspection for trucks; mobile equipment to inspect trucks, containers and cars; and a fixed pallet inspection system. This equipment has further application for the detection of weapons and explosives for border security and protection of high risk facilities. In addition, there is an emerging application for manifest verification for export and import cargoes.

The Company offers high performance X-ray inspection systems 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 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 competitive advantage.

The Company's product line currently includes 12 models. These models can be broadly categorized into 5 groups including: the Model 101 series, the Model 66 series, the EXR(TM)-ZZ(R) Automatic Explosive Detection Systems, the CargoSearch(TM) family and the BodySearch(TM) Personnel Inspection System. All of these systems utilize the Company's Z(R) 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, even when they are undetected by other competing systems.

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

The Model 66(R) handles small packages using the patented Z(R) Backscatter technology. This technology was validated by a study conducted by several U.S. government agencies involving the Model 66(R) and competitive systems in which the Model 66(R) 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 a number of Fortune 100 companies.

The EXR(TM) Automatic Explosives Detection System is a new second generation backscatter inspection system, designed to identify automatically all target threats. This system was developed with funding from the Federal Aviation Administration. This system is currently undergoing test and further enhancement. The target market is aviation luggage scanning.

The CargoSearch(TM) family of products includes the CargoSearch(TM) system, the MobileSearch(TM) system, and the PalletSearch(TM) system. The CargoSearch(TM) system is a non-intrusive inspection technology for the X-ray scanning of trucks, cars, cargo containers, pallets and air cargo using the Company's unique and patented Z(R) Backscatter technology. The fixed CargoSearch(TM) system sells for a turnkey price substantially lower than competing systems. The first CargoSearch(TM) system has been operating at the U.S. Customs facility in Otay Mesa, California, the busiest truck border crossing in the United States and was recently joined by the newly commissioned system in Calexico, CA. U.S. Customs has ordered six additional CargoSearch(TM) systems to be installed along the border with Mexico.

The first MobileSearch(TM) system was delivered under a \$1.8 million contract with the Defense Advanced Research Project Agency (DARPA). This mobile version of a CargoSearch(TM) system is a self-contained unit inside a conventional truck which is deployable within minutes and provides the transport mechanism via a hydraulic drive. The Company is marketing the MobileSearch(TM) system to agencies of the U.S. government and to foreign security and customs agencies and has sold a second system expected to be delivered in the second quarter of fiscal 1998. The new unit will include both Z(R) Backscatter and transmission X-ray capabilities.

PalletSearch(TM) 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 first PalletSearch(TM) system was delivered during fiscal 1997 to an ultra-secure agency of the U.S. government, and is presently in operation.

The BodySearch(TM) Personnel Inspection System offers a fast, safe, and non-intrusive way to screen individuals for the detection of concealed weapons, drugs, and illegal contraband. This system is used for drug detection and head of state security as well as for correctional facility security.

The Company has a number of U.S. and foreign issued patents and pending patent applications with respect to its X-ray products. Each U.S. patent issued prior to June 1995 has a duration of the longer of seventeen years from the date of issue or twenty years from the date of application; U.S. and virtually all foreign patents 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.

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

Most Micro-Dose(R) 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.

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. During fiscal 1997, the majority 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. The U.S. Customs Service is a major customer (with sales of more than 40 percent of the Company's consolidated revenues in fiscal 1997). The loss of this customer would be likely to have a material adverse effect on the Company taken as a whole. The Company believes that it has a satisfactory relationship with the U.S. Customs Service.

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 CargoSearch(TM), 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.

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 on certain overseas sole source providers of important components. No rare or exotic materials are utilized.

All X-ray products of the Company comply with all applicable U.S. Government regulatory standards.

[] RESEARCH AND DEVELOPMENT

The Company conducted approximately \$2,278,000 of government sponsored research primarily focused on technologies for the detection of illicit drugs, explosives and other security issues in fiscal 1997. This is compared to \$2,750,000 and \$2,206,000 of government sponsored research and development in fiscal 1996 and 1995, respectively. In addition, the Company spent approximately \$1,602,000 of its own funds for research relating to the development of new products or services during fiscal 1997, compared to \$533,000 and \$852,000 in fiscal 1996 and 1995, respectively.

A significant amount of the Company's 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 28, 1997 the Company had 167 employees compared to 150 employees at the end of the prior year.

[] SALES BACKLOG

The Company's firm sales backlog was \$15,584,000 at March 28, 1997 and \$12,198,000 at March 29, 1996.

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 \$11,220,000 at the end of fiscal year 1997 and \$8,254,000 at the end of fiscal year 1996.

It is estimated that approximately 83% of the 1997 backlog will be filled within the fiscal year ending March 27, 1998.

[] FINANCIAL INFORMATION ABOUT FOREIGN AND DOMESTIC OPERATIONS AND EXPORT SALES

All export sales are made in U.S. dollars, and many non-U.S. Government export sales are either secured by irrevocable letters of credit or paid in advance. Export sales are believed by the Company to have been at least as profitable as similar domestic sales. Substantially all of the Company's assets are maintained in the United States. The Company has not encountered, and does not 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.

Net Sales and Contract Revenues (Dollars in thousands)

Fiscal Year	1997 ----	1996 ----	1995 ----
Domestic	\$23,703	\$14,526	\$9,175
Export	\$ 4,776	\$ 3,289	\$3,822

ITEM 2. PROPERTIES

In March 1995, the Company took advantage of substantial cost savings opportunities presented by a soft market for R&D space in the Greater Boston area and moved its operations to Billerica, Massachusetts, approximately 20 miles outside of Boston. The move has provided the Company with more efficient manufacturing and laboratory space and, in the first year, saved the Company approximately \$1,100,000 in occupancy costs as compared to the previous lease while providing room for future growth.

The Company's executive offices and its research, manufacturing and warehouse facilities are now located in 105,600 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 remaining space in the building is currently leased by the owner 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 one (1) ten year optional extension term. The Company anticipates adding approximately 10,000 additional square feet contiguous to its present space in the second quarter of fiscal 1998. The terms for that space are similar to the terms for the Company's existing space.

ITEM 3. LEGAL PROCEEDINGS

In July 1993, the Company terminated the employment of Martin Annis as Chief Executive Officer and Chairman of the Board, on the basis of information received indicating that he had been engaging in activities that were incompatible with his status as an officer and employee of the Company. Dr. Annis brought suit against the Company and certain Officers and Directors, alleging wrongful termination, breach of contract and associated torts. The trial was concluded in April 1995, and the jury found that Dr. Annis's activities had materially breached his fiduciary duty to the Company, thereby justifying the Company

in terminating him. The Company also sued Dr. Annis, alleging that he misappropriated its trade secrets and proprietary technologies. Dr. Annis alleged that the Company interfered with his and his new company's business relationships. These matters were finally resolved in June 1997. As a result of the settlement, the Company's ownership rights in certain technology were affirmed, the Company gained rights to certain continuing developments made by Annistech, and the Company agreed to license that technology back to Annistech, Dr. Annis' company.

In May 1996, Vivid Technologies, Inc., filed a civil action against the Company, seeking inter alia a declaratory judgment that Vivid had not infringed

upon certain of the Company's patents relating to backscatter. 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

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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. No discovery has yet occurred in the case.

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:

Fiscal Year -----	Quarter Ended -----	High ----	Low ---
1997	March 28, 1997	14 7/8	12 1/8
	December 27, 1996	16 3/4	9 7/8
	September 27, 1996	18 3/4	9 3/8
	June 28, 1996	12 1/4	8 3/4
1996	March 29, 1996	10	7 1/2
	December 29, 1995	7 7/8	6 1/4
	September 29, 1995	7 5/16	5 11/16
	June 30, 1995	8 1/8	5 3/4

As of June 2, 1997, there were approximately 1,479 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.

ITEM 6. SELECTED FINANCIAL DATA

(Dollars in thousands, except per share amounts)

Fiscal year	1997 ----	1996 ----	1995 ----	1994 ----	1993 ----
Net sales and contract revenues	\$28,479	\$17,815	\$12,997	\$11,182	\$18,949
Net income (loss)	1,925	802	(967)	(3,335)	1,636
Income (loss) per share	.40	.18	(.23)	(.83)	.41
Total assets	15,514	14,295	10,734	10,541	15,479
Stockholders' investment	10,150	7,501	5,592	6,294	9,607
Book value per share	2.21	1.67	1.31	1.52	2.41

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

 RESULTS OF OPERATIONS

[] OVERVIEW

Net sales and contract revenues for fiscal 1997 improved by 60% to \$28,479,000 versus fiscal 1996 net sales of \$17,815,000. The Company earned profits of \$1,925,000 (\$.40 per share), an increase of 140% compared to a \$802,000 profit (\$.18 per share) in the previous year. Backlog at March 28, 1997 was \$15,584,000, a 28% increase over the backlog reported at previous fiscal year end.

[] 1997 COMPARED TO 1996

CHANGES IN FINANCIAL CONDITION - Cash and cash equivalents at year end decreased by \$175,000 to \$3,202,000, compared to \$3,377,000 in 1996. However, in contrast with the previous year end, almost no customer deposits were held at the end of fiscal year 1997 that would serve to offset the reported cash and cash equivalent position. Accounts receivable increased by \$1,323,000 from the prior year due to the increased shipments made during 1997. Inventories increased by \$422,000 during 1997 to support the growth in X-ray equipment shipments and backlog. Customer deposits decreased \$2,670,000 due to the attainment of milestones against certain long-term contracts. Current and noncurrent deferred revenue, in total, increased by \$811,000 from the previous year as a result of advanced payments for extended warranty and service contracts.

RESULTS OF OPERATIONS - Net sales and contract revenues increased by \$10,664,000 or 60% during fiscal year 1997. In 1997, security systems and field service revenues of \$26,201,000 increased by \$11,136,000 or 74%. Contract research and engineering revenues of \$2,278,000 decreased by \$472,000 or 17%.

Cost of sales and contracts in 1997 of \$18,423,000 was higher than the previous year primarily due to increased equipment sales. Cost of sales and contracts represented 64.7% of revenues during 1997, compared to 66.4% in 1996. This decline in the cost of sales ratio was due to a larger revenue base over which to spread fixed costs in 1997.

Selling, general and administrative expenses of \$6,494,000 were \$1,906,000 higher than the previous year and represented 22.8% of revenues, compared to 25.8% in 1996. The increased spending level was primarily due to expanded sales and marketing activities, costs associated with the Company's policy of aggressively defending its intellectual property rights, and the costs associated with recruiting for the Company's expanded management and staff requirements. The improvement in the ratio of SG&A expenses to revenues is a result of the increased sales volume.

Company funded research and development spending increased to \$1,602,000 in 1997, a 200% increase compared to the \$533,000 in spending in 1996. In accordance with accounting conventions, development costs in excess of contract amounts are included in the cost of sales for certain customer funded research contracts.

The Company's net profit of \$1,925,000 for fiscal year 1997 represents an improvement of \$1,123,000, or 140%, over net income of \$802,000 in the previous year. The Company was profitable in all quarters, and profits increased in each quarter during fiscal year 1997.

LIQUIDITY AND CAPITAL RESOURCES - Corporate liquidity and capital resources improved during fiscal year 1997. Net cash provided by operating activities was \$158,000, compared to \$1,966,000 net cash provided by operating activities in 1996. Additionally, during 1997, the Company received \$412,000 from the exercise of stock options. Cash and cash equivalents at March 28, 1997 stood at \$3,202,000, a decrease of \$175,000 over the prior year end. Customer deposits decreased by \$2,670,000 compared to 1996, resulting in an improvement in liquidity despite the Company's slightly lower cash and investments. Working capital at the end of 1997 increased 45% to \$9,856,000. The Company's current ratio also increased to 3.3 as compared to 2.0 at the end of 1996.

At the end of fiscal 1997, the Company had \$2.5 million in approved bank lines of credit against which there were no borrowings.

Given the Company's current cash position and access to unused borrowing capacity, management believes that sufficient capital resources are in place to support the Company's operations over the next several quarters.

MANAGEMENT ACTIONS - During fiscal 1997 AS&E achieved several milestones associated with receipt of new orders, further progress toward the commercialization of the Company's CargoSearch(TM) family of products, and continued expansion of the Company's domestic and international customer base. Examples include the following:

- - In March 1997 the Company received orders totaling \$8.5 million from U.S. Customs for the installation of four fixed-site CargoSearch(TM) systems for truck inspection along the Southwest border, bringing the total of such orders to eight. Two systems have been successfully installed and are currently operational.
- - The first PalletSearch(TM) system for inspection of high security freight and cargo was successfully installed in September 1996 at an ultra-secure U.S. agency in Washington, D.C.
- - The Company's first MobileSearch(TM) system, delivered in January 1996, has demonstrated its value as an enforcement tool and is now patrolling a 500 mile stretch of the Mexican border. In July 1996 the Company received a \$2.7 million order from the department of Defense Advanced Research Projects Agency (DARPA) for a second MobileSearch(TM) system with enhanced operating and detection capabilities. Delivery is anticipated for the second quarter of fiscal 1998.
- - The Company's core security market has expanded as more government agencies, both U.S. and international, have ordered AS&E's Backscatter detection systems for protection against sophisticated terrorist threats. Orders totaling \$6.2 million were received during fiscal 1997 for X-ray systems to protect the U.S. offices of two

prestigious Federal agencies. International revenues increased 45% to \$4.8 million in fiscal 1997 from \$3.3 million in fiscal 1996.

- - Throughout the fiscal year the Company improved its position in both the domestic and international marketplace, adding fourteen new government sector and corporate customers to its base.

The Company's improved sales volume, profitability, and liquidity has permitted increased investments in professional staff, internal technology, and Company-funded research and development in order to support future business expansion.

[] 1996 COMPARED TO 1995

CHANGES IN FINANCIAL CONDITION - Cash and cash equivalents at year end increased by \$2,508,000 to \$3,377,000, compared to \$869,000 in 1995. The 1996 increase was partly due to the receipt of cash advances from customers on certain long-term contracts. Accounts receivable increased by \$1,044,000 from the prior year due to the increased shipments made during 1996. Unbilled costs and fees decreased by \$725,000 as the result of completion and customer acceptance of certain R&E contracts. Inventories increased by \$605,000 during 1996, to support the growth in X-ray equipment shipments and backlog. The Company's trade credit position improved as accounts payable and accrued legal expenses decreased by \$370,000 in 1996.

The Company's return to profitable operations, together with its improved cash resources and continued access to outside bank financing, relieved the chronic cash shortages which existed during the previous two years.

RESULTS OF OPERATIONS - Net sales and contract revenues increased by \$4,818,000 or 37.1% during fiscal year 1996. In 1996, security systems and field service revenues of \$15,065,000 increased by \$4,274,000 or 39.6%. Contract research and engineering revenues of \$2,750,000 increased by \$544,000 or 24.7%.

Cost of sales and contracts in 1996 of \$11,823,000 was higher than the previous year due to increased equipment sales and contract research activity. Cost of sales and contracts represented 66.4% of revenues during 1996, compared to 69.8% in 1995. This decline in the cost of sales ratio was due to (1) a greater proportion of equipment shipments in the revenue mix which carry a higher gross margin compared to contract research, (2) a larger revenue base over which to spread fixed costs in 1996, and (3) economies associated with the new facility relocation in March 1995.

Selling, general and administrative expenses of \$4,588,000 were \$500,000 higher than the previous year and represented 25.8% of revenues, compared to 31.5% in 1995. The increased spending level was largely due to expanded sales and marketing activities. The improvement in the ratio to revenues was expected as a result of the expanded sales volume and the elimination of nonrecurring litigation-related and facility move costs included in the previous year's SG&A spending.

Company funded research and development spending declined to \$533,000 in 1996, compared to \$852,000 in 1995. In accordance with accounting conventions, development costs in excess of contract amounts are included in the cost of sales for certain customer funded research contracts.

The Company's net profit of \$802,000 for fiscal year 1996 represents an improvement of \$1,769,000 over the loss of \$967,000 in the previous year. The Company was profitable in all quarters, and profits increased in each quarter during fiscal year 1996.

LIQUIDITY AND CAPITAL RESOURCES - Corporate liquidity and capital resources improved substantially during fiscal year 1996. Net cash provided by operating activities was \$1,966,000, compared to \$922,000 net cash used by operating activities in 1995. Additionally, during 1996, the Company received \$950,000 from the issuance of stock and the exercise of stock options. Cash and cash equivalents at March 29, 1996 stood at \$3,377,000, an increase of \$2,508,000 over the prior year end. The Company's current ratio remains 2.0, unchanged from the end of last fiscal year.

The Company's improved liquidity and cash position is due to (1) the return to profitable operations, (2) controlled growth in accounts receivable and inventory balances, (3) the negotiation of significant unrestricted cash advances relating to several large equipment contracts, and (4) a successful private equity placement in July 1995. Additionally, at year end, the Company had up to \$3 million in approved but unused bank lines of credit.

Given the improved cash position and access to unused borrowing capacity, management believes that sufficient capital resources are in place to support the Company's operations over the next several quarters.

MANAGEMENT ACTIONS - 1996 was a year in which a sound financial structure was established which permitted a return to profitable revenue growth. The actions taken fall into two primary categories:

- financial restructuring and capital building
- new sales and contract initiatives

The significant initiatives in each area are discussed below.

Financial Restructuring and Capital Building - The fiscal year began, in April 1995, with the successful resolution of litigation brought by the Company's former president and founder, thereby removing a major financial uncertainty that had inhibited the Company's ability to attract outside financing. During the course of the year, financing initiatives totaling over \$5.5 million were completed:

- In April 1995, certain Officers and Directors extended a 4-month, \$650,000 bridge loan to the Company, permitting it to continue efforts to arrange more permanent financing.

- In June 1995, the Company obtained a \$1,000,000 line of credit from a regional bank, guaranteed by the U.S. Export-Import Bank, for purposes of financing growth in export sales.
- In July 1995, the Company arranged a private placement of equity, producing \$856,250 in net proceeds.
- In January 1996, two lines of credit totaling \$3 million were arranged with a regional bank for purposes of financing growth in domestic equipment sales and anticipated short lead time orders.

NEW SALES AND CONTRACT INITIATIVES - During the previous two years, management laid the groundwork that was to be the basis for rebuilding the Company's revenues and profitability. Numerous initiatives were undertaken in the areas of new product commercialization, advanced technology development and expansion of the customer base. During 1996, these efforts produced tangible results. Examples include the following:

- During the first quarter, the Company signed a multi-year contract to supply the Model 101XLTM and Model 101 Van X-ray inspection systems to the U.S. Customs Service. During 1996, in excess of \$1 million of the Company's revenue was attributable to this agreement.
- In January 1996, the Company's first MobileSearch(TM) system was shipped --a field mobile inspection system that allows for fast deployment and surprise searches of cargo and vehicles for drugs, contraband and explosives.
- During the year, a development contract for the first PalletSearch(TM) system was awarded by an ultra-secure Government Agency, which will extend the Company's capability to the inspection of complex cargoes by individual pallets. PalletSearch(TM) is expected to be installed and fully operational during the summer of 1996.
- During the second quarter, the Company's first EXR(TM) (Enhanced X-ray) system was shipped to the Federal Aviation Administration. The EXR(TM) system represents the Company's next generation of explosives detection capability and provides for both automatic and operator assisted bomb detection in airport luggage.
- During the second quarter, the Company received three large and highly prestigious equipment orders: three Model 101ZZ(R) Trailers for the detection of explosives at the 1996 Olympics in Atlanta; twenty-one Z(R) Backscatter X-ray systems for installation in Washington, DC; and sixteen Model 101Z(R) systems to be installed in the offices of the Federal Emergency Management Agency throughout the country.

- Throughout the year, the Company improved its position in the non-governmental sector, adding eighteen new private, corporate customers to its base.
- During the fourth quarter, the Company was awarded contracts for three CargoSearch(TM) installations for the U.S. Customs Service on the Southwest border with Mexico. These contracts, valued in excess of \$7 million, are significant milestones in the Company's multi-year program to develop commercially viable truck, vehicle and cargo inspection systems.

Management believes that the successful marketing and product development results produced during 1996 are evidence that the turnaround program begun in fiscal year 1994 is working.

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 27 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 JUNE 5, 1997.

Name	Age	Positions and Offices of Company Held	Date Assumed Each Position

DIRECTORS			

Herman Feshbach	80	Director Chairman	September 1975 July 1993
Al Gladen	59	Director	September 1995
Hamilton W. Helmer	50	Director	February 1993
Donald J. McCarren	57	Director	February 1993
William E. Odom	64	Director	September 1996
Ralph S. Sheridan	47	Director President & CEO	January 1994 September 1993
EXECUTIVE OFFICERS (Who are not also Directors)			

Jeffrey A. Bernfeld	40	Vice President, General Counsel & Clerk	February 1996
Peter W. Harris	43	Vice President, Sales and Marketing	February 1994
Michael V. Hynes	46	Vice President, Science & Technology	September 1995
Alan H. Rutan	56	Vice President, Engineering	July 1996
Lee C. Steele	48	Vice President, Finance Treasurer & CFO	September 1994

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 is an Institute Professor Emeritus at the Massachusetts Institute of Technology, a position he has held for more than five years, and has previously served as Chairman of the Physics Department at MIT and Director of the MIT Center for Theoretical Physics. He is a past President of the American Physical Society and the American Academy of Arts and Sciences and is Fellow of both those Organizations and of the American Association for the Advancement of Sciences. He is on the Board of Governors

for Tel Aviv University and the Weizmann Institute of Science, is on the Board of Editors for Daedalus and Editor of the Annals of Physics, and has served as Chairman or Member on numerous committees for the Department of Energy, the National Science Foundation, the National Academy of Sciences, and the American Physical Society. He was awarded the National Medal of Science by President Reagan in 1986. Dr. Feshbach received his Ph.D. from MIT.

Mr. Al Gladen is President of Dabster, Inc., a technology consulting firm specializing in engineering and technology management assistance, with offices in Kent, Washington. Mr. Gladen's consulting activities have included strategic technology planning, new product development, project management and acquisition review. Mr. Gladen has acted as a technology and engineering consultant to the Company since 1993, and it is expected that he will continue to provide such assistance on a part-time basis. Mr. Gladen holds four U.S. patents and is a director of four other privately held corporations.

Dr. Hamilton W. Helmer has, for the last 14 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 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 President and Chief Executive Officer 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 bio-tech research and development company located in Cambridge, Massachusetts. Prior to that, he was 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 Australian 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. Jeffrey A. Bernfeld joined AS&E as Vice President, General Counsel and Clerk in February 1996. Prior to that time, he was Vice President and General Counsel of Spire Corporation in Bedford, Massachusetts for three and one-half years; a founder and Managing Director of Global Solutions, Inc. in Wellesley, Massachusetts for one year; Vice President and General Counsel of The Mediplex Group in Wellesley, Massachusetts for two years; and a partner at Goldstein & Manello, a law firm in Boston, Massachusetts, where he began his career as an Associate in 1981. Mr. Bernfeld received his B.A. from Brandeis University and his J.D. from New York University School of Law. Mr. Bernfeld is a director of Summit Technology, Inc. of Waltham, Massachusetts.

Mr. Peter W. Harris joined the Company in February 1994 as Vice President, Sales and Marketing. Prior to joining the Company, Mr. Harris was Manager of External Affairs for Stone & Webster, an architectural engineering firm in Boston, Massachusetts, where he held a number of positions beginning in 1988. During his time at Stone & Webster, Mr. Harris concentrated on Federal government and international sales. Mr. Harris, a graduate of the U.S. Naval Academy, holds the rank of Captain in the U.S. Naval Reserve and commanded several units during his twelve years of active duty and seven years in the Naval Reserve. In addition, Mr. Harris holds a Master's degree in National Security Studies from Georgetown University.

Dr. Michael V. Hynes joined AS&E as Vice President and Chief Technical Officer in September 1995. Prior to joining AS&E, Dr. Hynes had been at Los Alamos National Laboratory for fifteen years, where he held a number of positions including Industrial Fellow, Program Manager and Project Leader. Dr. Hynes earned three degrees from the Massachusetts Institute of Technology: a B.S. in Physics; an M.S. in Management and a Ph.D. in Physics. Dr. Hynes has authored more than fifty articles in the peer-reviewed literature and has won numerous awards and honors including Weizmann and Sloan Fellowships from MIT, an Oppenheimer Fellowship from Los Alamos Scientific Laboratory and a Distinguished Performance Award from Los Alamos National Laboratory.

Mr. Alan H. Rutan joined the Company in July 1996 as Vice President of Engineering. Prior to that time, Mr. Rutan spent 11 years at Raytheon Company, most recently as Manager of the Air Defense Systems Department, where his work focused on radar systems engineering and signal processing. Prior to his Raytheon experience, Mr. Rutan spent seven years at GTE Laboratories as a Senior Member of the Technical Staff. From 1974 to 1978, Mr. Rutan ran his own consulting firm, Signal Processing Associates, Inc., which

specialized in image processing applications for various government security organizations. Mr. Rutan received his B.A. in Physics from Harvard University.

Mr. Lee C. Steele joined the Company in September 1994 as Vice President of Finance and Chief Financial Officer. From 1991 until he joined the Company, Mr. Steele was a principal of Asset Management Corporation, a Waltham, Massachusetts consulting firm specializing in the analysis and resolution of complex financial and operational challenges for small and medium size businesses. Until 1991, Mr. Steele was a Partner at Deloitte & Touche, specializing in profit planning, corporate finance and troubled company situations. He holds an M.B.A. from Harvard Business School and an engineering degree from Case Western Reserve University.

ITEM 11. EXECUTIVE COMPENSATION

[] THE FOLLOWING CHART PROVIDES INFORMATION CONCERNING COMPENSATION PAID BY THE COMPANY DURING THE YEAR ENDED MARCH 28, 1997 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 Compen- sation Option Awards (#)	All Other Compen- sation (\$)(1)
		Salary (\$)	Bonus (\$)		
Ralph S. Sheridan President and CEO	1997	222,213	270,385(3)	225,000	4,479
	1996	200,000	202,168(3)	0	2,486
	1995	200,000	111,055(3)	0	2,198
Jeffrey A. Bernfeld Vice President, General Counsel	1997	120,408	19,000	16,000	408
	1996(2)	7,846	N.A.	24,000	408
Peter W. Harris Vice President, Sales / Marketing	1997	111,941	45,000	30,000	403
	1996	110,000	40,000	0	403
	1995	110,000	0	0	721
Michael V. Hynes Vice President, Science and Technology	1997	116,240	N.A.	0	1,240
	1996(2)	60,153	N.A.	32,000	1,240
Lee C. Steele Vice President and CFO	1997	120,560	27,000	0	752
	1996	110,752	27,000	0	1,344
	1995(2)	55,000	0	50,000	900

- (1) All Other Compensation includes imputed income from taxable life insurance 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 includes cash, stock and payments made to him to alleviate the tax impact of his stock bonus.

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 1999, at an annual salary of \$240,000, plus performance bonuses tied to specific accomplishments. This contract replaces Mr. Sheridan's original contract with the Company, which expired in September 1996.

Under the contract, Mr. Sheridan is eligible to receive an annual bonus of up to \$230,000 in each contract year, based on his accomplishment of goals established by the Compensation Committee. Under the previous contract, but not under the current contract, Mr. Sheridan also received a bonus of up to 10,000 shares of common stock and an amount calculated to compensate him for the taxes due on the stock portion of this bonus. In addition, in October 1996 the Company granted Mr. Sheridan options to purchase 225,000 shares of the Company's Common Stock at an exercise price of \$14.00 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.

Mr. Bernfeld has an agreement with the Company which provides for a minimum base salary of \$120,000, adjustable at the discretion of the President, and a bonus of up to

\$20,000 subject to the achievement of individual and corporate goals; and 24,000 stock options granted at market price, which vest according to a schedule. The agreement is for a three year term ending in February, 1999, and grants Mr. Bernfeld severance payments equal to one year's salary if he is terminated in connection with a change of the control of the Company as defined in the agreement. The agreement also provides that if Mr. Bernfeld 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.

Mr. Rutan has an agreement with the Company granting Mr. Rutan 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 Mr. Rutan 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.

Mr. Steele has an agreement with the Company providing for a three year term ending in September, 1997, subject to termination for "Cause" as defined. The contract establishes a base salary of \$110,000 plus a potential bonus of up to \$30,000 upon the achievement of semiannual individual and corporate goals as established by the President of the Company in consultation with Mr. Steele. The agreement grants Mr. Steele 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 FOLLOWING TABLES PROVIDE INFORMATION CONCERNING THE GRANT OF OPTIONS IN FISCAL YEAR 1997 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	Annual Rates of Stock Price Appreciation for Option Term (\$)	
					5%/year	10%/year
Ralph S. Sheridan	225,000	52.43	14.000	10/24/06	1,082,217	3,282,776
Jeffrey A. Bernfeld	16,000	3.73	13.125	2/12/07	106,006	293,186
Peter W. Harris	30,000	6.99	9.875	11/21/06	296,260	647,224
Michael V. Hynes	0	0	N/A	N/A	N/A	N/A
Alan H. Rutan	24,000	5.59	10.000	7/8/06	199,437	434,163
Lee C. Steele	0	0	N/A	N/A	N/A	N/A

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 28, 1997 (#)		Value of Unexercised In-The-Money Options at Fiscal Year End - March 28, 1997 (\$)	
			Exerc- isable	Unexerc- isable	Exerc- isable	Unexerc- isable
Ralph S. Sheridan	0	0	120,000	225,000	975,000	0
Jeffrey A. Bernfeld	0	0	20,000	20,000	49,500	49,500
Peter W. Harris	0	0	30,000	30,000	236,250	67,500
Michael V. Hynes	0	0	16,000	16,000	90,000	90,000
Alan H. Rutan	0	0	6,000	18,000	12,750	38,250
Lee C. Steele	0	0	37,500	12,500	250,781	83,594

[] 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. The Chairman receives 2,500 shares of Common Stock on January 10th in each year and continues to receive deferred compensation under a now discontinued plan described below. No meeting fees or other fees are payable to any Director.

Dr. Feshbach, the Company's Chairman, is covered by a nonfunded deferred compensation plan (adopted in 1976 and amended in 1977, 1980, 1986, 1990 and 1992) that provides for periodic payments beginning at age 65, based on length of service. During the year, Dr. Feshbach received \$4,752 under the Plan. The Company accrues the current cost of the plan, which amounted to \$10,000 in fiscal 1997.

[] COMPENSATION COMMITTEE INTERLOCKS, INSIDER PARTICIPATION AND SECTION 16 REPORTING

During the fiscal year ended March 28, 1997, the Company's Compensation Committee consisted of Dr. Herman Feshbach, Dr. Hamilton W. Helmer and Dr. Donald J. McCarren. No reportable relationship existed with respect to any member of the Compensation Committee.

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 1997, the Company believes that all required reports were filed on time.

[] BOARD COMPENSATION COMMITTEE REPORT ON EXECUTIVE COMPENSATION

The Compensation Committee of the Board of Directors (consisting of the three 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.

In line with this approach, the Company entered into a new employment agreement with its President and Chief Executive Officer, Mr. Ralph S. Sheridan, in 1996 (effective as of September 1996). This Agreement was based, in part, on an independent consultant's analysis of compensation arrangements for chief executives of comparable companies, and was also based on a careful review of the most important goals and objectives for the Company. The Agreement provides for annual cash compensation of \$240,000, plus annual incentive bonuses of up to \$230,000 tied to specific, agreed upon performance criteria. In addition, in order to provide for long-term incentives, the Company has issued to Mr. Sheridan nonstatutory stock options to purchase 225,000 shares of Common Stock which vest ratably over three years.

For the contract year ended in September 1996, which was performed under Mr. Sheridan's prior contract, the Committee awarded Mr. Sheridan a cash bonus of \$75,000 and 10,000 shares of stock, representing 100% of the potential award under his contract. This award represents the Committee's determination that Mr. Sheridan had done an excellent job over the preceding twelve months and had met all of the goals and objectives jointly established by the Committee and Mr. Sheridan.

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: Dr. Herman Feshbach, Dr. Hamilton W. Helmer and Dr. Donald J. McCarren.

[] 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.

INDEXED RETURNS
Years Ended March

	1992 ----	1993 ----	1994 ----	1995 ----	1996 ----	1997 ----
AS&E	100	140.43	65.96	106.38	168.09	206.38
S&P 500	100	115.19	116.89	135.06	178.28	213.57
S&P Hi-Tech	100	109.88	129.24	163.54	220.80	298.48

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 5, 1997. 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 -----
Jeffrey A. Bernfeld	20,643	(2)
Herman Feshbach	15,290	(2)
Al Gladen	44,055	(2)
Peter W. Harris	32,677	(2)
Hamilton W. Helmer	32,781	(2)
Michael V. Hynes	16,187	(2)
Donald J. McCarren	40,581	(2)
William E. Odom	3,000	(2)
Alan H. Rutan	12,188	(2)
Ralph S. Sheridan	326,743	6.94
Lee C. Steele	45,148	(2)
Directors and Officers as a Group (11 persons)	589,293	11.43

(1) Includes shares that may be acquired under stock options and warrants exercisable within sixty days after the date of this table, as follows: Mr. Bernfeld - 20,000; Dr. Feshbach - 3,750; Mr. Gladen - 37,000; Mr. Harris - 32,500; Dr. Helmer - 27,000; Dr. Hynes - 16,000; Dr. McCarren - 33,000; Mr. Odom - 0; Mr. Rutan -12,000; Mr. Sheridan - 120,000; Mr. Steele - 45,000 and all Directors and Officers as a group - 346,250. 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

In April, 1995 a group that included three of the Company's Officers and one Company Director made a loan to the Company in the total amount of \$650,000. The proceeds of the loan were used for general working capital purposes. The loan was paid off in full on a timely basis.

The Board of Directors determined that the loan was necessary and the terms appropriate. The Company had been seeking short-term financing from several banks, but conclusion of a conventional line of credit arrangement was delayed pending resolution of the lawsuit brought by the Company's founder, in which the Company has now received a favorable jury verdict. In addition, portions of the Company's working capital had been tied up in

slow-paying foreign accounts receivable and as collateral for letters of credit supporting certain international sales. These factors justified a form of short-term "bridge loan" while the Company worked on a more permanent financing alternative.

The loan terminated on August 15, 1995, and bore interest at the prime rate plus two percent. The Company granted a security interest in all of its assets to the lending group during the pendency of the loan. As additional consideration, the Company issued a total of 6,500 shares of its Common Stock and warrants to purchase 65,000 shares of its Common Stock proportionally to the lenders. The warrant exercise price is the lowest trading price of the stock on the American Stock Exchange during the term of the loan. The Company has registered these shares.

Ralph S. Sheridan, the Company's President and CEO, provided \$200,000 of the loan funds. Al Gladen, who subsequently became a Director of, and remains a Consultant to, the Company, provided \$300,000. Lee C. Steele, the Company's Vice President of Finance and CFO, provided \$75,000. Donald J. McCarren, a Director of the Company, provided \$50,000. Peter W. Harris, the Company's Vice President of Sales and Marketing, provided \$25,000.

Mr. Gladen provides engineering and management services to the Company on a regular basis. In fiscal year 1997, the compensation paid to Dabster, Inc., a corporation of which Mr. Gladen is the President, for such services was \$226,350.

All other information required for by this Item appears in Items 10 and 11 of this Annual Report on Form 10-K, and is incorporated herein by reference.

PART IV
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ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K
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- (a) The financial statements and schedules listed in the Index to Consolidated Financial Statements and Schedule on page 27 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 46-47 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 SUBSIDIARY

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

AND SCHEDULE

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

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Consolidated Statements of Operations	31
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Consolidated Statements of Stockholders' Investment	32
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CONSOLIDATED SUPPLEMENTARY FINANCIAL INFORMATION

Unaudited quarterly consolidated financial data for the years ended March 28, 1997, and March 29, 1996	43
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(Separate Financial Statements of the Company have been omitted since the net assets of its wholly owned subsidiary are not so restricted with respect to payment of loans, advances and cash dividends to the Company as to require such disclosure.)

FINANCIAL STATEMENT SCHEDULE

Schedule VIII - Valuation and Qualifying Accounts and Reserves	44
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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 subsidiary as of March 28, 1997 and March 29, 1996 and the related consolidated statements of operations, stockholders' investment and cash flows for each of the three years in the period ended March 28, 1997. These consolidated financial statements and 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 generally accepted auditing standards. 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 subsidiary as of March 28, 1997 and March 29, 1996, and the results of its operations and its cash flows for each of the three years in the period ended March 28, 1997.

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.

Boston, Massachusetts
May 21, 1997

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARY
 CONSOLIDATED BALANCE SHEETS
 MARCH 28, 1997 AND MARCH 29, 1996

Dollars in thousands

	1997 ----	1996 ----
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents (Note 2)	\$ 3,202	\$ 3,377
Accounts receivable, net of allowances of \$148 in 1997 and \$179 in 1996 (Note 1)	5,019	3,875
Unbilled costs and fees, net of allowances of \$462 in 1997 and \$97 in 1996 (Note 1)	981	1,258
Inventories (Note 1)	4,736	4,314
Prepaid expenses and other current assets	157	278
Deferred income taxes (Note 5)	--	10
TOTAL CURRENT ASSETS	----- 14,095	----- 13,112
DEPOSITS	115	257
PROPERTY, EQUIPMENT AND LEASEHOLD IMPROVEMENTS, NET OF ACCUMULATED DEPRECIATION OF \$8,860 IN 1997 AND \$8,507 IN 1996 (Notes 1 and 3)	1,304	926
	----- \$15,514 =====	----- \$14,295 =====

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

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARY
 CONSOLIDATED BALANCE SHEETS (CONTINUED)
 MARCH 28, 1997 AND MARCH 29, 1996

Dollars in thousands

	1997	1996
	----	----
LIABILITIES & STOCKHOLDERS' INVESTMENT		
CURRENT LIABILITIES:		
Current maturities of obligations under capital leases (Note 3)	\$ 18	\$ 16
Accounts payable	2,253	2,021
Accrued salaries and benefits	573	496
Accrued warranty costs (Note 1)	292	178
Deferred revenue (Note 1)	526	375
Customer deposits	--	2,670
Other current liabilities	577	546
	-----	-----
TOTAL CURRENT LIABILITIES	4,239	6,302
	-----	-----
NONCURRENT LIABILITIES:		
Obligations under capital leases, net of current maturities (Note 3)	42	59
Deferred revenue (Note 1)	660	--
Deferred compensation (Note 10)	174	192
Deferred rent (Note 1)	249	231
Deferred income taxes (Note 5)	--	10
	-----	-----
TOTAL NONCURRENT LIABILITIES	1,125	492
	-----	-----
COMMITMENTS AND CONTINGENCIES (Notes 3, 4, 10, and 11)		
STOCKHOLDERS' INVESTMENT: (Notes 6 and 7)		
Preferred stock, no par value		
Authorized - 100,000 shares		
Issued - None		
Common stock, \$.66-2/3 par value		
Authorized - 20,000,000 shares		
Issued 4,585,209 shares in 1997 and 4,500,627 shares in 1996	3,058	3,001
Capital in excess of par value	15,273	14,556
Accumulated deficit	(7,365)	(9,290)
	-----	-----
Note receivable-Officer (Note 8)	10,966	8,267
Less: treasury stock - 62,841 and 67,377 shares in 1997 and in 1996, at cost, respectively	(640)	(640)
	-----	-----
TOTAL STOCKHOLDERS' INVESTMENT	10,150	7,501
	-----	-----
	\$15,514	\$14,295
	=====	=====

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

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARY
 CONSOLIDATED STATEMENTS OF OPERATIONS
 FOR THE YEARS ENDED MARCH 28, 1997, MARCH 29, 1996,
 AND MARCH 31, 1995

Dollars in thousands, except per share amounts

	1997 ----	1996 ----	1995 ----
NET SALES AND CONTRACT REVENUES (Notes 1 and 9)	\$28,479	\$17,815	\$12,997
Cost of sales and contracts (Note 1)	18,423	11,823	9,076
	-----	-----	-----
GROSS PROFIT	10,056	5,992	3,921
EXPENSES:			
Selling, general and administrative	6,494	4,588	4,088
Research and development (Note 1)	1,602	533	852
	-----	-----	-----
TOTAL EXPENSES	8,096	5,121	4,940
OPERATING INCOME/(LOSS)	1,960	871	(1,019)
	-----	-----	-----
OTHER INCOME/(EXPENSE):			
Interest, net	111	52	67
Other, net	(68)	(91)	(15)
	-----	-----	-----
TOTAL OTHER INCOME (EXPENSE)	43	(39)	52
	-----	-----	-----
INCOME/(LOSS) BEFORE PROVISION FOR INCOME TAXES	\$ 2,003	\$ 832	\$ (967)
PROVISION FOR INCOME TAXES (Note 5)	78	30	--
	-----	-----	-----
NET INCOME/(LOSS)	\$ 1,925	\$ 802	\$ (967)
	=====	=====	=====
Income/(Loss) Per Share - Primary/Fully Diluted (Note 1)	\$.40	\$.18	\$ (.23)
	=====	=====	=====
Weighted Average Shares - Primary	4,826	4,517	4,257
	=====	=====	=====
- Fully Diluted	4,837	4,541	4,257
	=====	=====	=====

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

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' INVESTMENT
FOR THE YEARS ENDED MARCH 28, 1997, MARCH 29, 1996 AND MARCH 31, 1995
Amounts in thousands, except share amounts

	COMMON STOCK		CAPITAL IN	ACCU-	NOTE	TREASURY STOCK		TOTAL
	SHARES	AMOUNT	EXCESS OF PAR VALUE	MULATED DEFICIT	RECEIVABLE OFFICER	SHARES	AMOUNT	
BALANCE, APRIL 1, 1994	4,216,475	\$2,811	\$13,374	\$ (9,125)	\$(640)	67,377	\$ (126)	\$ 6,294
Net (loss)	--	--	--	(967)	--	--	--	(967)
Exercise of stock options (Note 6)	2,645	2	29	--	--	--	--	31
Issuance of stock	38,000	25	209	--	--	--	--	234
BALANCE, MARCH 31, 1995	4,257,120	2,838	13,612	(10,092)	(640)	67,377	(126)	5,592
Net income	--	--	--	802	--	--	--	802
Exercise of stock options (Note 6)	18,868	13	40	--	--	--	--	53
Issuance of stock (Note 7)	224,639	150	904	--	--	--	--	1,054
BALANCE, MARCH 29, 1996	4,500,627	3,001	14,556	(9,290)	(640)	67,377	(126)	7,501
Net income	--	--	--	1,925	--	--	--	1,925
Exercise of stock options (Note 6)	68,723	46	396	--	--	5,464	(69)	373
Issuance of stock	15,859	11	321	--	--	(10,000)	19	351
BALANCE, MARCH 28, 1997	4,585,209	\$3,058	\$15,273	\$ (7,365)	\$(640)	62,841	\$ (176)	\$ 10,150

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE CONSOLIDATED FINANCIAL STATEMENTS.

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED MARCH 28, 1997, MARCH 29, 1996, AND MARCH 31, 1995

Dollars in thousands

	1997 ----	1996 ----	1995 ----
Cash flows from operating activities:			
Net income/(loss)	\$ 1,925	\$ 802	\$ (967)
Adjustments to reconcile net income (loss) to net cash provided by (used for) operating activities:			
Depreciation and amortization	352	205	219
Amortization of deferred gain	--	--	(68)
Provisions for contract, inventory, accounts receivable and warranty reserves	795	510	219
Change in assets and liabilities:			
Accounts receivable	(1,322)	(1,244)	(412)
Unbilled costs and fees	(7)	725	(1,075)
Inventories	(422)	(442)	145
Prepaid expenses, other current assets, and deposits	273	(257)	184
Accounts payable	232	(148)	1,669
Customer deposits	(2,670)	2,622	(122)
Accrued expenses and other current liabilities	352	(1,028)	(197)
Accrued restructuring costs	--	--	(275)
Noncurrent liabilities	650	221	(242)
	-----	-----	-----
TOTAL ADJUSTMENTS	(1,767)	1,164	45
	-----	-----	-----
NET CASH PROVIDED BY (USED FOR) OPERATING ACTIVITIES	158	1,966	(922)
	-----	-----	-----
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property and equipment, net	(730)	(250)	(693)
	-----	-----	-----
Cash flows from financing activities:			
Capital lease financing	--	--	108
Proceeds from borrowings (Notes 3 and 11)	--	650	--
Repayment of officer note (Note 11)	--	(650)	--
Proceeds from exercise of stock options	412	53	31
Proceeds from issuance of stock	--	897	--
Principal payments of capital lease obligations	(15)	(158)	(151)
	-----	-----	-----
Cash provided by (used for) financing activities	397	792	(12)
	-----	-----	-----
Net increase (decrease) in cash and cash equivalents	(175)	2,508	(1,627)
Cash and cash equivalents at beginning of year	3,377	869	2,496
	-----	-----	-----
Cash and cash equivalents at end of year	\$ 3,202	\$ 3,377	\$ 869
	=====	=====	=====
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Interest paid	\$ 10	\$ 79	\$ 16
Income taxes paid	30	--	--
Non-cash transactions:			
Issuance of stock in lieu of fees	\$ 311	\$ 157	\$ 234

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

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARY
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 MARCH 28, 1997

1. NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

American Science and Engineering, Inc., 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 subsidiary. All significant intercompany balances and transactions have been eliminated in consolidation. The Company's fiscal year ends on the Friday closest to March 31. As such, the Company's fiscal year ended on March 28, 1997.

INVENTORIES Inventories are stated at the lower of cost, computed on a first-in, first-out basis, or market and generally include material, labor and factory overhead.

The components of inventories at March 28, 1997 and March 29, 1996 were as follows (dollars in thousands):

	1997 ----	1996 ----
Raw materials and completed subassemblies	\$3,106	\$3,014
Work-in-process	1,334	1,300
Finished goods	296	--
	-----	-----
	\$4,736	\$4,314
	=====	=====

PROPERTY, 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 which 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 provides currently for future warranty and installation costs on units sold covering the estimated replacement and installation costs related to parts and labor.

METHODS OF RECORDING PROFITS ON CONTRACTS Revenues and profits are generally recorded on cost reimbursement 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 cost of work performed to date for each contract to its estimated final cost.

Revenues and profits are recorded on other fixed price contracts 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.

If a loss is anticipated on a contract, provision is made at that time for the full amount of the estimated loss without reference to the percentage of completion or to performance milestones.

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 \$339,000 in 1997 and \$394,000 in 1996) result from both commercial contract retentions and government contract withholdings for 15% of fees, as well as differences 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.

Included in accounts receivable and unbilled costs and fees at March 28, 1997 and March 29, 1996 are \$3,694,000 and \$3,444,000 respectively, from both prime and subcontracts with the U.S. Government.

DEFERRED REVENUE The Company recognizes service contract revenues ratably over the term of the contract. The Company provides a reserve for its estimate of warranty costs at the time of shipment. Deferred revenue in the accompanying balance sheets consists primarily of unearned revenue on service contracts. Substantially all of the deferred revenue included in the accompanying 1997 balance sheet will be recognized within 2 years.

DEFERRED RENT The Company entered into a lease for its office and manufacturing facilities. This lease has escalation clauses. Generally accepted accounting principals require normalization of the rental expense over the life of the lease, resulting in deferred rent being reflected in the accompanying 1997 consolidated balance sheet.

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 (LOSS) PER COMMON AND COMMON EQUIVALENT SHARES The Company currently calculates earnings per common share under Accounting Principles Board Opinion (APB) No. 15, "Earnings Per Share." Income/(loss) per share was computed by dividing the net income by the weighted average number of shares of common stock outstanding during each year. Common stock equivalents (stock options and stock warrants) were considered in the computation of earnings per common and common equivalent share for 1997 and 1996. Stock options and stock warrants were not considered in computing the loss per share in 1995, as the effect would have been antidilutive.

In March 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards (SFAS) No. 128, "Earnings Per Share," which establishes standards for computing and presenting earnings per share for entities with publicly held common stock or potential common stock. SFAS No. 128 is effective for periods ending after December 15, 1997 and early adoption is not permitted. SFAS No. 128 replaces primary earnings per share with "basic earnings per common share." Basic earnings per common share is computed by dividing net income by the weighted average number of shares of common stock outstanding during the year. No dilution for any potentially dilutive securities is included. In addition, SFAS No. 128 replaces fully diluted earnings per common share with "diluted earnings per common share." Dilution for options and warrants under SFAS No. 128 is computed using the average share price of the Company's common stock for the period, rather than the more dilutive greater of the average share price or end-of-period share price required by APB No. 15. Under the provisions of SFAS No. 128, the pro forma basic and diluted earnings per common share for 1997 would be \$.43 and \$.40, respectively. For fiscal years 1996 and 1995 there would have been no material change from primary and fully diluted earnings per common share to basic and diluted earnings per share under SFAS No. 128.

INCOME TAXES The Company accounts for Income Taxes in accordance with 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 whose realizability is not more likely than not.

PRESENTATION Certain amounts in 1996 and 1995 have been reclassified to conform to the 1997 financial statement presentation.

2. CASH AND CASH EQUIVALENTS

The Company considers all cash 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 1997 and 1996.

Cash equivalents as of March 28, 1997 consist primarily of U.S. Treasury Bills of approximately \$1,500,000 with maturities of 30 days or less, and overnight repurchase agreements with a regional bank in the amount of \$1,900,628. 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.

3. OPERATING AND CAPITAL LEASE AGREEMENTS

In January 1995, the Company entered into a lease agreement for its new office and manufacturing facilities in Billerica, Massachusetts. This lease has a term of 10 years which started March 1, 1995, with an option to extend for 10 additional years. The remaining security deposit on the lease amounts to \$100,000. Escalation clauses provide for rent increases after the first and fifth years of the rental term. The Company incurred \$501,000, \$513,000 and \$1,640,000 of rent expense in 1997, 1996, and 1995 respectively.

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

Year Ending March	

1998	\$ 475
1999	475
2000	482
2001	554
2002	554
Thereafter	1,617

	\$4,157
	=====

During fiscal 1995 the Company entered into a lease agreement for the purchase of certain office equipment. This lease is classified as a capital lease under generally accepted accounting principals and is payable in monthly installments over a period of 60 months with interest of 11.5%. Future minimum lease payments are as follows (in thousands):

	Year Ending March -----
1998	\$ 23
Thereafter	48

Total minimum lease payments	71
Less: Amounts representing interest	(11)

Present value of net minimum lease payments	\$ 60 =====

4. LINES OF CREDIT

In August 1996, the Company renewed its domestic line of credit for \$2.5 million with a regional bank. The line of credit is secured by accounts receivable from ongoing customers as well as inventory. Monthly interest payments on this line of credit are at the rate of prime plus one-half percent (.5%). There is a quarter percent (.25%) commitment fee on the unused portion of the line. As of March 28, 1997, there were no borrowings against the line of credit. The \$2.5 million line of credit expires on July 31, 1997, at which time a formal credit renewal agreement is expected to be in place.

5. INCOME TAXES

At March 28, 1997, the Company had approximately \$6,986,000 of federal net operating loss carryforwards which can be used, subject to certain limitations, to offset any future federal taxable income. The carryforwards expire through the year 2010. The Company also has unused investment tax and other credits of approximately \$213,000 expiring through 2001. The provision for income taxes in the accompanying statement of income is substantially a current provision and differs from the provision calculated by applying the statutory federal income tax rate of 34% to income before provision for income taxes due to the following:

	1997 ----	1996 ----
Provision for income taxes at statutory rate	\$ 681,000	\$ 283,000
Benefit from utilization of net operating loss carryforwards	(681,000)	(283,000)
Other tax liabilities	78,000	30,000
	-----	-----
	\$ 78,000	\$ 30,000
	=====	=====

At March 28, 1997, the Company had \$3,562,000 of short and long-term deferred tax assets. The Company has recorded a valuation allowance of \$3,562,000 against these amounts due to the uncertainties surrounding the realization of the Company's net operating loss carryforwards, the realization of which is dependent upon the future taxable income of the Company.

The tax effect of the primary temporary differences giving rise to the Company's deferred tax assets and liabilities at March 28, 1997, are as follows (in thousands):

	1997		1996	
	Current Asset (Liability)	Long-Term Asset (Liability)	Current Asset (Liability)	Long-Term Asset (Liability)
Reserves for accounts receivable and unbilled costs and fees	\$ 238	\$ --	\$ 156	\$ --
Inventory related reserves	239	--	243	--
Depreciation and amortization	--	26	--	(119)
Accrued warranty costs	114	--	69	--
Net operating loss carryforwards	--	2,375	--	3,056
Tax credits and other	333	237	318	155
	-----	-----	-----	-----
	924	2,638	786	3,092
Valuation allowance	(924)	(2,638)	(776)	(3,102)
	-----	-----	-----	-----
Total deferred income taxes	\$ --	\$ --	\$ 10	\$ (10)
	=====	=====	=====	=====

The valuation allowance at March 28, 1997 was approximately \$316,000 lower than the valuation allowance at March 29, 1996 primarily due to the usage of net operating loss carryforwards during the year.

6. COMMON STOCK

STOCK OPTION PLANS The Company has various formal stock option plans for directors, officers, and employees. 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 from five to ten years from the date of grant. The Company has a common stock installment purchase plan under which the Board of Directors may grant to 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 28, 1997, no shares have been reserved or granted under this plan. During the year ended March 28, 1997, the Company instituted two new 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. 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 In October 1995, the Financial Accounting Standards Board issued SFAS No. 123, "Accounting for Stock-Based Compensation," which sets forth a fair-value based method of recognizing stock-based compensation expense. As permitted by SFAS No. 123, the Company has elected to continue to apply APB No. 25 to account for its stock-based compensation plans. Had compensation cost for awards in 1997 and 1996 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	1997	1996
	----	----
Net income:		
As reported	\$1,925	\$802
Pro forma	1,411	644
Primary/fully diluted earnings per share:		
As reported	\$.40	\$.18
Pro forma	.29	.14

Because the method prescribed by SFAS No. 123 has not been applied to options granted prior to April 1, 1995, the resulting pro forma compensation expense may not be representative of the amount to be expensed in future years. Pro forma compensation expense for options granted is reflected over the vesting period; therefore, future pro forma compensation expense may be greater as additional options are granted.

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 5.97% to 6.64% and 5.38% to 6.24% for 1997 and 1996, respectively, expected life of 5 years, expected volatility of 30%, and an expected dividend yield of 0%.

STOCK OPTIONS ACTIVITY A summary of the Company's stock option activity is as follows:

(Shares in thousands)	1997		1996		1995	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Range of Exercise Prices
Options outstanding, beginning of year	557,404	\$ 5.72	506,194	\$5.07	290,808	\$2.88-\$6.56
Options granted	537,610	12.56	204,000	6.79	233,800	\$5.56
Options exercised	(68,723)	5.32	(18,868)	4.67	(2,645)	\$2.88-\$6.56
Options expired	(25,150)	8.06	(133,922)	5.93	(15,769)	\$3.50-\$6.56
Options outstanding, end of year	1,001,141	10.16	557,404	5.72	506,194	
Options exercisable	529,241	6.21	412,404	5.16	227,494	\$2.88-\$6.56
Options available for grant	681,538		577,404		506,194	\$2.88-\$6.56
Weighted average fair value per share of options granted during the year		4.24		2.57		

The following summarizes certain data for options outstanding at March 28, 1997:

	Number of Shares -----	Range of Exercise Prices -----	Weighted Average Exercise Price -----	Weighted Average Remaining Contractual Life ----
Options outstanding, end of year:	166,034	\$2.88 - \$5.38	\$ 4.04	7.66
	380,707	\$5.38 - \$7.88	\$ 6.02	8.38
	198,400	\$7.88 - \$12.88	\$10.19	9.37
	256,000	\$12.88 - \$16.25	\$13.93	9.60
	----- 1,001,141 =====		\$10.16	8.83
Options Exercisable:	166,034	\$2.88 - \$ 5.38	\$ 4.04	
	324,707	\$5.38 - \$ 7.88	\$ 5.93	
	27,200	\$7.88 - \$12.88	\$ 9.78	
	11,300	\$12.88 - \$16.25	\$13.21	
	----- 529,241 =====		\$ 6.21	

7. PRIVATE EQUITY PLACEMENT

During fiscal 1996, the Company, in a private placement, sold 203,044 shares of common stock to a foreign investor for total consideration of \$937,500. The Company received net proceeds of \$856,250. The Company utilized the services of a financial services firm. As compensation, the financial services firm received a fee of \$81,250 as well as stock purchase warrants allowing the firm to purchase up to 29,167 shares of the Company's stock at \$6.25 per share. No expense was recognized related to the issued warrants as the exercise price of the warrants approximated fair value at the date of grant.

8. EMPLOYMENT AGREEMENT AND NOTE RECEIVABLE FROM OFFICER

On January 12, 1994, the Company entered into an Employment Agreement with the Company's President and Chief Executive Officer. On September 29, 1994, the stockholders approved the issuance of non-qualified stock options for 80,000 shares (at \$4.00 per share) to be exercised to varying extents at various times through its expiration on December 16, 2003. The excess of the quoted market price of the stock at the date of the award (\$5.50) over the price stipulated by the Agreement (\$4.00) has been recognized by the Company as compensation expense. This total amount has been amortized on a straight line basis over the length of a vesting period of three years, through September 1997.

In addition, 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.

9. BUSINESS SEGMENT INFORMATION

Certain financial information by business segment for the fiscal years 1997, 1996, and 1995 is presented below (dollars in thousands):

Business Segment	Total Assets	Capital Expenditures	Depreciation and Amortization	Revenue	Income/ (Loss) Before Tax
1997					
X-ray Products	\$11,915	\$298	\$ 108	\$28,479	\$ 6,411
Corporate	3,599	432	244	--	(4,451)
Interest income	--	--	--	--	121
Interest expense	--	--	--	--	(10)
Other expense, net	--	--	--	--	(68)
	\$15,514	\$730	\$ 352	\$28,479	\$ 2,003
1996					
X-ray Products	\$10,081	\$163	\$ 50	\$17,815	\$ 4,385
Corporate	4,214	88	155	--	(3,514)
Interest income	--	--	--	--	131
Interest expense	--	--	--	--	(79)
Other expense, net	--	--	--	--	(91)
	\$14,295	\$251	\$ 205	\$17,815	\$ 832
1995					
X-ray Products	\$ 6,122	\$ 61	\$ 20	\$12,355	\$ (1,029)
Control Systems	456	--	69	642	300
	6,578	61	89	12,997	(729)
Corporate	4,156	632	130	--	(290)
Interest income	--	--	--	--	83
Interest expense	--	--	--	--	(16)
Other expense, net	--	--	--	--	(15)
	\$10,734	\$693	\$ 219	\$12,997	\$ (967)

Corporate assets consist primarily of cash and cash equivalents, prepaid expenses and fixed assets.

During fiscal 1996, due to the insignificant contribution to revenue and earnings by the Control Systems business segment, this segment was combined with the X-ray Products Business segment. The level of contribution to revenues and earnings by the Control Systems business segment is expected to be insignificant in the future.

Approximately 78% in 1997, 69% in 1996, and 55% in 1995 of consolidated revenues were derived from prime and subcontracts with, or sales to, various United States federal and state governmental agencies.

Sales to major customers (representing in excess of 10% of consolidated sales) included X-ray Products segment sales of \$11,531,000 and \$3,463,000 to two customers, respectively, in 1997, \$2,854,000 to one customer in 1996 and \$2,025,000 to one customer in 1995.

The Company's export sales, which include all sales of products and services delivered outside of the United States, were \$4,776,000 in 1997, \$3,289,000 in 1996 and \$3,822,000 in 1995.

10. COMMITMENTS AND CONTINGENCIES

DEFERRED COMPENSATION The Company has an unfunded deferred compensation plan for certain of its current and former directors which provides for periodic payments beginning at age 65, the amount of which depends on their length of service. The Company accrues the estimated current cost, which amounted to \$10,000 in 1997, \$21,000 in 1996 and \$21,000 in 1995.

LITIGATION In July 1993, the Company terminated the employment of Martin Annis as Chief Executive Officer and Chairman of the Board, on the basis of information received indicating that he had been engaging in activities that were incompatible with his status as an officer and employee of the Company. Dr. Annis brought suit against the Company and certain Officers and Directors, alleging wrongful termination, breach of contract and associated torts. The trial was concluded in April 1995, and the jury found that Dr. Annis's activities had materially breached his fiduciary duty to the Company, thereby justifying the Company in terminating him. The Company also sued Dr. Annis, alleging that he misappropriated its trade secrets and proprietary technologies. Dr. Annis alleged that the Company interfered with his and his new company's business relationships. These matters were finally resolved in June 1997. As a result of the settlement, the Company's ownership rights in certain technology were affirmed, the Company gained rights to certain continuing developments made by Annistech, and the Company agreed to license that technology back to Annistech, Dr. Annis' company.

In May, 1996, Vivid Technologies, Inc., 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 backscatter. 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. No discovery has yet occurred in the case.

11. LOANS FROM OFFICERS

In April 1995, the Company received \$650,000 in cash from Officers and Directors as a temporary loan, primarily to support working capital needs. Interest was paid monthly at the rate of prime plus 2% per annum. In addition, the Company issued a total of 6,500 shares of its common stock and warrants to purchase 65,000 shares of its common stock at \$5.875/share, exercisable through August 1997, proportionately to the lenders. The fair value of these issuances of \$45,500 is included in interest expense in the consolidated statement of operations. The loan was due and repaid on August 15, 1995.

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARY
 UNAUDITED QUARTERLY CONSOLIDATED FINANCIAL DATA FOR THE YEARS ENDED MARCH 28,
 1997 AND MARCH 29, 1996

Dollars in thousands, except per share amounts

	1997 BY QUARTER				1996 BY QUARTER			
	1st ---	2nd ---	3rd ---	4th ---	1st ---	2nd ---	3rd ---	4th ---
Net sales and contract revenues	\$6,699	\$6,685	\$7,127	\$7,968	\$3,517	\$3,882	\$4,717	\$5,699
Gross profit	2,091	2,356	2,832	2,777	1,064	1,305	1,420	2,203
Operating income	398	463	515	584	50	215	252	354
Net income	\$ 406	\$ 451	\$ 503	\$ 565	\$ 52	\$ 155	\$ 252	\$ 343
Net income per share	.09	.09	.10	.12	.01	.04	.05	.07

SCHEDULE VIII

AMERICAN SCIENCE AND ENGINEERING, INC. AND SUBSIDIARY
 VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
 FOR THE YEARS ENDED MARCH 28, 1997, MARCH 29, 1996 AND MARCH 31, 1995

DESCRIPTION - ACCOUNTS RECEIVABLE

Dollars in thousands

	Balance at Beginning of Year -----	Charged to Costs and Expenses -----	Deductions from Reserves -----	Balance at End of Year -----
1997	\$179	\$178	\$209	\$148
1996	\$ 96	\$200	\$117	\$179
1995	\$111	\$ 25	\$ 40	\$ 96

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 -----
1997	\$ 97	\$384	\$ 19	\$462
1996	\$ 72	\$ 25	\$ --	\$ 97
1995	\$552	\$ --	\$480	\$ 72

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMERICAN SCIENCE AND ENGINEERING, INC.

DATED: June 1997

By /s/ Ralph S. Sheridan

Ralph S. Sheridan, President

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Company and in the capacities and on the dates indicated:

Signature -----	Title -----	Date ----
/s/ Ralph S. Sheridan ----- Ralph S. Sheridan	President and Director (Principal Executive Officer)	25 June 1997
/s/ Lee C. Steele ----- Lee C. Steele	Chief Financial Officer, Treasurer and Vice President, Finance (Principal Financial Officer)	25 June 1997
/s/ Joseph Moffa ----- Joseph Moffa	Controller (Principal Accounting Officer)	25 June 1997
/s/ Herman Feshbach ----- Herman Feshbach	Chairman of the Board of Directors	25 June 1997
/s/ Al Gladen ----- Al Gladen	Director	25 June 1997
/s/ Hamilton W. Helmer ----- Hamilton W. Helmer	Director	25 June 1997
/s/ Donald J. McCarren ----- Donald J. McCarren	Director	25 June 1997
/s/ William E. Odom ----- William E. Odom	Director	25 June 1997

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 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 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 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)	
(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) (vii)	Employment Agreement between the Company and Ralph S. Sheridan (filed as exhibit 10(b)(v) to the Company's Annual Report on Form 10-K for the year ended April 1, 1994, and incorporated herein by reference)	
(10) (b) (viii)	Loan and Security Agreement between the Company and Alfred Gladen as Agent (with forms of Promissory Note and Stock Purchase Warrants) (filed) as Exhibit 10(b)(vi) to the Company's Annual Report on Form 10-K for the year ended March 31, 1995, and incorporated herein by reference)	

Exhibit Number -----	Description of Exhibit (and Statement of Incorporation by Reference, If Applicable) -----	Page Number (If Filed) -----
(10) (b) (ix)	1996 Stock Plan For Non-Employee Directors (filed on Exhibit 99 to the Company's Registration Statement on Form S-8, File No. 333-09257, filed on 7/31/96, 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 herewith.....	48
(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 herewith.....	49
(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.....	51

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AMERICAN SCIENCE AND ENGINEERING, INC.

Reload Option Plan

ELIGIBLE EMPLOYEES: CEO direct reports and certain key contributors designated by the Board from time to time.

TERM OF THE PLAN: Coincident with the last to expire of any stock option plan.

NUMBER OF OPTIONS GRANTED: To be determined as a function of the number of shares "used" upon exercise of each covered option.

ELIGIBILITY: All Eligible Employees who have received or receive in the future stock options.

GRANT OF RELOADS: Any Eligible Employee designated by the Board may be granted a "reload option" on the following terms: For every share of Company Common Stock used by an Eligible Employee to pay for the exercise of a covered stock option and for every share of Company Common Stock sold to pay the taxes on the exercise of a covered stock option, the Eligible Employee will receive new stock options at an exercise price equal to the fair market value of the Common Stock on the date of the sale of the Stock replaced by the reload options. All reload options shall have a term equal to the unexpired term of the original grant of the options exercised in the reload triggering event.

RESTRICTION: Stock purchased in a transaction which results in the grant of reload options may not be sold during the term of the Eligible Employee's employment with the Company, subject to a hardship exemption which may be granted in the discretion of the CEO. If "reload stock" is sold, the employee will be ineligible for further participation in the reload program for two years. "Reload stock" will be measured by the net number of shares of Common Stock owned by the employee at any given time (i.e. so long as the employee continues to hold at least as many shares as s/he received as the result of exercises of stock options in reload transactions, the employee will continue to be eligible to participate in the plan).

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FIRST AMENDMENT

This FIRST AMENDMENT is made and entered into this 11th day of June, 1997 by and between Middlesex Development Limited Partnership (hereinafter referred to as "Landlord") and American Science and Engineering, Inc. a Massachusetts corporation (hereinafter referred to as "Tenant").

WITNESSETH:

WHEREAS, Landlord and Tenant entered into a lease dated January 12, 1995 (the "Lease") with respect to 105,600 square feet of space located on the first floor of the building located at 829 Middlesex Turnpike, Billerica, Massachusetts.

WHEREAS, Tenant desires to lease additional space in the building;

WHEREAS, Landlord has agreed to lease such additional space to Tenant and the parties desire to modify the Lease accordingly;

NOW THEREFORE, for valuable consideration, Landlord and Tenant hereby agree as follows:

Effective July 1, 1997, the Premises specified in Section 1.1 of the Lease shall be increased by the addition of 9,600 square feet of rentable floor area as shown on Exhibit A attached hereto. Accordingly, on July 1, 1997, the Rentable Floor Area of Premises specified in Section 1.1 of the Lease shall be increased to 115,200 square feet.

Effective July 1, 1997, the Annual Fixed Rent Rate specified in Section 1.1 of the Lease shall be increased to \$513,600.00 through February 28, 2000, and shall be \$604,800.00 thereafter through the expiration or earlier termination of the term. Consequently, as of July 1, 1997, the Monthly Fixed Rent Rate shall be increased to \$42,800.00 through February 28, 2000, and shall be \$50,400.00 thereafter through the expiration or earlier termination of the term.

Effective July 1, 1997, the Tenant's Percentage specified in Section 1.1 of the Lease shall be increased to seventy-two (72%) percent.

The Premises are leased to Tenant in an "as-is" condition, without any representation or warranty by Landlord as to the condition of the Premises or its suitability for Tenant's use, and without any obligation on the part of Landlord to construct or otherwise prepare the Premises for Tenant's occupancy, except that Landlord shall, at Tenant's sole cost, construct a demising wall in the Premises and attach all utilities to the meters presently serving the Premises. Landlord shall perform the work in a timely manner at commercially reasonable rates using materials of commercially acceptable quality. The cost of such work shall be paid for by Tenant as additional rent promptly upon Tenant's receipt of Landlord's bill therefor. If Tenant fails to promptly remit such amount to Landlord, Landlord shall have, in addition to any other rights and remedies that may be available to Landlord, all the same rights and remedies available under Article 8 of the Lease for the nonpayment of the Fixed Rent and additional rent.

Tenant warrants and represents that it has dealt with no broker in connection with the consummation of this Amendment, other than Nordblom Company, and in the event of any brokerage claims, other than by Nordblom Company, against Landlord predicated upon prior dealings with Tenant, Tenant agrees to defend the same and indemnify and hold Landlord harmless against any such claim.

Except as hereinabove provided, all of the terms, conditions and provisions of the Lease are ratified and confirmed and shall remain in full force and effect.

IN WITNESS WHEREFOR, Landlord and Tenant have duly executed this First Amendment to take effect as a sealed instrument.

LANDLORD:

MIDDLESEX DEVELOPMENT LIMITED
PARTNERSHIP

By: Route 3 Associates, general partner

s/John B. Macomber

As Trustee, and not individually

s/Peter C. Nordblom

As Trustee, and not individually

TENANT:

AMERICAN SCIENCE AND ENGINEERING, INC.

By s/Jeffrey A. Bernfeld

Name: Jeffrey A. Bernfeld

Title: Vice President and

General Counsel

Hereunto Duly Authorized

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CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in Registration Statement Nos. 33-61903, 333-05795 and 333-05797 of our report dated May 21, 1997 included in this Form 10-K for the year ended March 28, 1997.

Boston, Massachusetts
June 23, 1997

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THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED CONDENSED FINANCIAL STATEMENTS OF AMERICAN SCIENCE AND ENGINEERING, INC. FOR THE YEAR ENDED MARCH 28, 1997 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS

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