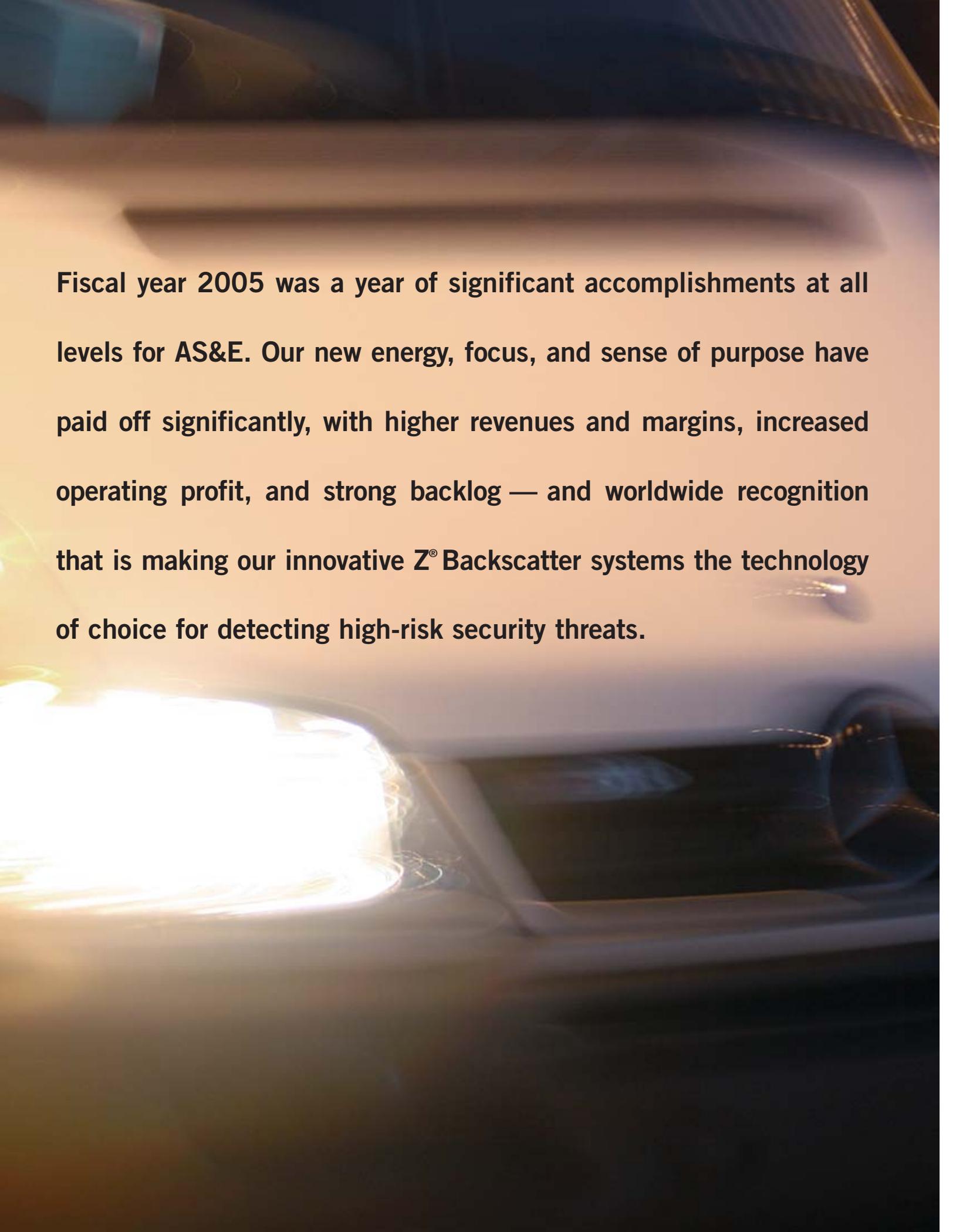


AMERICAN SCIENCE AND ENGINEERING, INC. | 2005 ANNUAL REPORT

GAINING MOMENTUM



WORLDWIDE LEADER IN X-RAY DETECTION TECHNOLOGY



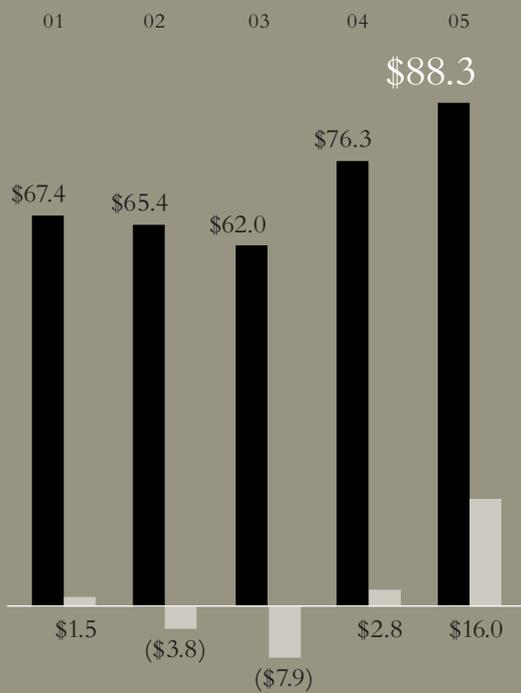
Fiscal year 2005 was a year of significant accomplishments at all levels for AS&E. Our new energy, focus, and sense of purpose have paid off significantly, with higher revenues and margins, increased operating profit, and strong backlog — and worldwide recognition that is making our innovative Z[®] Backscatter systems the technology of choice for detecting high-risk security threats.

IT IS OUR MISSION to be a leading worldwide supplier of innovative X-ray and other inspection solutions in targeted markets, while delivering superior growth in shareholder value over the long term.

We will be customer driven and fill needs with technologically advanced products and services at competitive prices. We will perform with speed and agility.

REVENUE & OPERATING INCOME (LOSS)

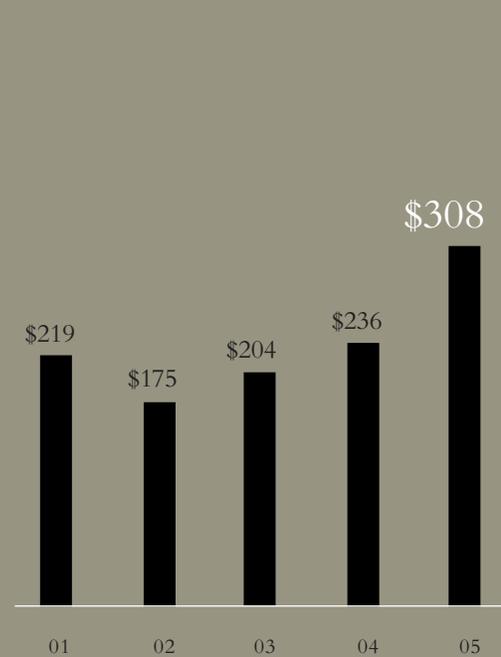
IN MILLIONS



■ REVENUE □ OPERATING INCOME

REVENUE PER EMPLOYEE

IN THOUSANDS



2005 FINANCIAL HIGHLIGHTS

- American Science and Engineering, Inc. (AS&E) attained record revenues for the fiscal year ended March 31, 2005 with reported revenue of \$88.3 million — a 16% increase compared to revenue of \$76.3 million in fiscal year 2004.
- Gross margins earned in fiscal 2005 grew to 34.5% from 26.1% in fiscal 2004 on increased volume and product cost and overhead reductions.
- AS&E reported net income for fiscal 2005 of \$11.2 million or \$1.31 per share, as compared to \$1.9 million or \$0.26 per share for fiscal 2004.
- AS&E completed an Asset Purchase Agreement with Accuray Incorporated for the sale of certain of the assets of AS&E's High Energy Systems Division (HES) for cash and a note in the aggregate amount of \$8.3 million. Net gain on sale of these assets totaled \$5.4 million.
- AS&E increased backlog to \$72.1 million at March 31, 2005 as compared to \$33.9 million at March 31, 2004.

AS&E CODE OF BUSINESS CONDUCT AND ETHICS We ... strive to foster a culture of honesty and accountability. Our commitment to the highest level of ethical conduct should be reflected in all of the Company's business activities ... One of our Company's most valuable assets is our reputation for integrity, professionalism and fairness. We ... recognize that our actions are the foundation of our reputation and adhering to this Code and applicable law is imperative. *(To review the complete Code, please go to "Investor Information" on our Web site, www.as-e.com.)*

BACKLOG
IN MILLIONS



STOCK PRICE (NASDAQ: ASEI)
FISCAL YEAR 2005



2005 MILESTONES

- Denis R. Brown is appointed to AS&E's Board of Directors. (June 2004)
- Ken Galaznik is appointed Chief Financial Officer and Treasurer. (February 2005)
- AS&E moves to NASDAQ National Market and trades under the symbol ASEI. (October 2005)
- AS&E's President and CEO, Anthony Fabiano, opens the NASDAQ National Market on ASEI's first day of trading. (October 6, 2005)
- Ryan Beck & Co. and JMP Securities initiated analyst coverage of AS&E.
- AS&E is listed on *The Boston Globe* "100-Bulls and Bears" as the third best stock performer for 2005. (May 17, 2005)

2005 was a successful and gratifying year, marked by a number of impressive achievements, including increased demand for our patented technologies.

Dear Fellow Shareholders:

All of us at AS&E can look back on fiscal year 2005 as a successful and gratifying one, marked by a number of impressive achievements. We reported record earnings, revenues, and backlog. The year also laid the foundation for fiscal 2006 and beyond by inspiring further accomplishments and success — giving us the momentum for even greater recognition of our highly effective and proprietary products.

In the last fiscal year, we exceeded our annual financial goals, both through solid revenue growth and an exceptional improvement in earnings. Revenue grew by 16% to \$88.3 million, gross margin percentage increased from 26.1% to 34.5%, and operating income, excluding a gain realized on sale of assets, increased more than threefold, jumping to 11.9%. These results added up to a fivefold increase in net earnings per share of \$1.31. We have now recorded five consecutive quarters of operating profitability, and our stock price has increased from \$16.50 to \$44.71 per share. Revenue per employee has increased 31%, to \$308,000, and backlog has more than doubled to \$72.1 million.

With an aggressive new approach and focus, we implemented all of the organizational changes and operating improvements we planned for at the beginning of the year. Those changes included both operating and product cost reductions, recruitment of highly talented technical, marketing, sales and managerial people, the strengthening of our intellectual property portfolio, and the preparation of a

focused, growth-oriented strategic plan. We reaffirmed our commitment to enhancing the products and services we offer to our customers, and we have made significant progress in increasing international interest in our products. Most importantly, we continue to gain worldwide recognition and increased demand for our patented Z[®] Backscatter technology.

Although we are proud of the significant growth and improvements of 2005, the numerous opportunities and challenges that lie ahead mean we still have our work cut out for us. At AS&E, we are firmly dedicated to accelerate growth and profitability by meeting customers' needs for security products and we remain committed to our corporate legacy — innovation and the development of breakthrough technologies.

For the second year in a row, we ended the fiscal year on a high note with excellent fourth-quarter results. Our people did an outstanding job in meeting all shipment goals, resulting in \$27.0 million in revenue for the quarter. These results can be attributed to several noteworthy initiatives. We implemented productivity improvements to further reduce operating costs in fiscal 2006 and beyond. We improved cost-estimating procedures and controls to increase product gross margins and to reduce program risks. We increased factory throughput by reducing product lead times and by substantially improving on-time deliveries. We once again achieved a well-distributed mix of order backlog among our product areas: Cargo, Parcel, Z Backscatter, Service and Support, and Contract Research



and Development (CRAD). Finally, our sales pipeline, which has consistently grown throughout the year, continued to expand in the last quarter. All of these significant achievements are contributing to our strong momentum as we move into the first quarter of 2006.

BREAKTHROUGH PRODUCTS

We also made great strides in 2005 in both strengthening our Product Management organization and establishing more effective linkages between our Research and Development (R&D) and Sales and Service groups. Our product managers have taken top- and bottom-line responsibility for their respective business areas, and are providing strong leadership for innovation, growth, and increased profitability. Product road maps have been developed through feedback and suggestions from customers and are resulting in new product features to increase annual revenues and lengthen product life-cycles. One important avenue for obtaining input from our customers is the Annual User Conference. Once again, the event was highly successful and gave our customers the opportunity to provide their insights on our products as well as offer suggestions for improvements and new products.

The Z Backscatter Systems area was the strongest contributor to AS&E's 2005 financial performance and growth. Our Z Backscatter Van™ (ZBV) is a revolutionary product that continues to generate strong worldwide demand and sales momentum. The ZBV has been established as the mobile product of choice for detecting car and

truck bombs, IEDs (Improvised Explosive Devices), and VBIEDs (Vehicle-Borne Improvised Explosive Devices). In addition, the ZBV is proving to be an excellent complement to transmission-only X-ray systems by providing functionality that transmission systems lack, particularly in port and border-crossing environments. In 2005, we booked \$61 million in orders for ZBVs from the U.S. government (for use in counterterrorism and force protection), U.S. and international law enforcement (for use in anti-terrorism and drug interdiction programs), and U.S. and international Customs (used in drug and trade fraud interdiction). Domestic customers accounted for 76 percent of the orders, and international customers brought us the remaining 24 percent. This increasing demand from the international community gives us added encouragement that our breakthrough products are being well-received around the world.

We are gratified by the ZBV's performance in the field, particularly the many reports of the lives that are being saved by the use of our product in war zones. We continue to improve the reliability of the ZBV, and are adding new features and functionality to support our customers' evolving needs. One example is personnel scanning capability in accordance with ANSI safety standards. This feature, highly requested by both military and law enforcement customers, has increased the product's versatility and should result in even higher demand for it. Our sales pipeline for the ZBV is at an all-time high, and we are very optimistic about potential sales in all market segments. Through our aggressive, continuous cost-improvement campaign,

May 2004

First Shaped Energy Gantry system begins operation at Pearl Harbor, Hawaii

September 2004

AS&E receives \$23.2 million U.S. government order for 24 ZBVs to be used in counter-terrorism operations

April 2005

Military hails use of ZBV, which detected explosives hidden in car in Iraq

THE ZBV IS DETECTING CAR AND TRUCK BOMBS IN MILITARY OPERATIONS.

Used in force protection and anti-terrorism operations, our Z Backscatter Van is a critical asset in detecting car and truck bombs, improvised explosive devices, and radioactive threats. Our Shaped Energy™ Gantry system is ideal for inspecting oil trucks and dense cargo.



June 2004

Major U.S. city becomes latest to acquire ZBVs for use in urban policing and counterterrorism

July–Sept 2004

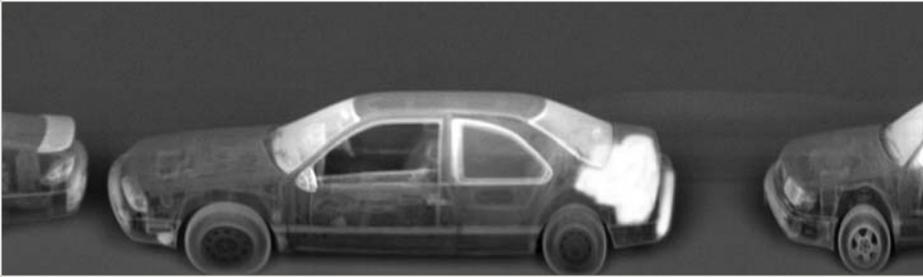
ZBV and MobileSearch™ used in security applications at the Democratic and Republican National Conventions

October 2004

ZBV used for event security at the Boston Red Sox-NY Yankees American League Championship Series

IN MAJOR CITIES, THE ZBV HAS BECOME A VITAL TOOL IN LAW ENFORCEMENT.

The ZBV's drive-by capability and its ability to scan for explosive and radioactive threats — in real time — make it a breakthrough security tool in urban environments.



we also have consistently improved gross margin results. Moreover, we have the production capacity to meet the growing order demands of our valued customers.

In the Cargo System area, we won a major follow-on order for our Shaped Energy™ system, which is a testament to the product's value and reliability. Customers are very pleased with its low operating costs. We see excellent domestic and international sales potential for our greatly improved design, with its enhanced user versatility, higher performance, shorter delivery lead time, and greater operating reliability.

Our Parcel System business team was very productive in 2005, winning and performing successfully on high-profile custom orders, in addition to meeting revenue targets for our standard line. We delivered and installed in record time a unique Z Backscatter parcel system at an airport in the Asia-Pacific region. We also designed and delivered to the U.S. Government — under extremely tight schedule constraints — several custom-designed Z Backscatter “walk-through” personnel scanning systems for anti-terrorism use.

AS&E's Z Backscatter personnel screening systems are being reviewed for testing at U.S. airports by the Transportation Security Administration (TSA). The systems are a highly effective alternative to intrusive and time-consuming “pat-down” searches at airport security checkpoints. In addition to providing comprehensive and accurate detection of all types of explosives and weapons — which

competing product technologies fail to do — the personnel screening system utilizes extremely low levels of radiation, making it not only extremely reliable, but safe. We also have worked diligently with the TSA to develop the technology to modify the X-ray images which present only an outline of the scanned individual, distinguishing potential threats on the body while at the same time securing the person's privacy. Once the systems are deployed, we will be anxiously awaiting TSA's test results and remain very enthusiastic about the sales prospects for this product.

EXCITING OPPORTUNITIES

Our Service and Support group remains an outstanding contributor to our financial results. We continue to receive strong renewals of service agreements from major customers, predominantly the result of very high customer satisfaction ratings. In 2005, we earned record service revenue, at \$19.4 million, which was driven by an \$11 million service contract order from a key customer. Our parts and service margins have been consistently strong and reflect high up-time rates on equipment under contract, in addition to new operating cost-efficiencies. In January 2005, we consolidated our domestic and international field service operations under a single vice president. These changes are already delivering improved customer satisfaction, reduced cycle-times, and lower costs. These advances, coupled with potential service contracts for ZBV systems coming off of warranty and increasing training revenues, make us very confident about our ability to grow this critical area of our business.



Our R&D program is on the move as well, with an energetic focus on areas that will deliver significant growth. While our CRAD area was a modest contributor to bookings and revenue for the year, we have taken several initiatives and are seeing good progress. To focus on CRAD opportunities, we formed a new business area under the leadership of a top program manager. We subsequently won two strategic programs that should result in high-margin/high-growth products over the next few years. Our pipeline of CRAD opportunities is expanding and covers areas with excellent potential for AS&E. We also are continuing to build our Science and Technology group. We have hired some very promising scientists and engineers, and we have increased our 2006 Internal R&D (IRAD) plan for investments in new products and technologies.

INTERNATIONAL ENTHUSIASM

In 2005, we fortified our sales team with the recruitment of two top-notch regional sales managers — one to build the European market and the second to strengthen and build our program in the Asia-Pacific (APAC) region. The latter has already added significant opportunities to our sales pipeline, following a successful training conference in Singapore for our APAC sales representatives. The ZBV “roadshow” in Europe, held during the fourth quarter of 2005, was a great success. We visited five countries over a period of three months, conducting in-depth, live demonstrations to ranking law enforcement and Customs officials in each country. We were encouraged by the enthusiastic reception, especially after the ZBV

proved its superior detection capabilities by finding contraband during live demonstrations at various Customs checkpoints.

Educating our global customer base on the advantages of Z Backscatter has been a priority resulting in the increased awareness and understanding of the unique benefits of AS&E’s proprietary technology. There is no doubt that demands for the ZBV and our patented technology is increasing throughout the world — an exciting trend for AS&E.

2005 MILESTONES

We began trading our common stock on the NASDAQ National Market on October 6, 2004 under the symbol ASEI. This move to NASDAQ reinforces the Company’s exposure to the investment community and is an important, positive step in our mission to deliver superior growth in shareholder value.

On January 11, 2005, we announced the completion of the sale of certain of the assets of AS&E’s High Energy Systems Division (HES), located in Mountain View, California, to Accuray Incorporated for cash and a note in the aggregate amount of \$8.3 million. The HES Division designed and manufactured proprietary X-band linear accelerators for AS&E, Accuray, and other customers. In the sale agreement, AS&E retained exclusive rights to market and sell these X-band linear accelerators for security and non-destructive testing applications. The transaction also included a supply agreement through which AS&E has exclusive rights to purchase X-band

AT PORTS AND BORDER CROSSINGS, OUR SYSTEMS ARE DETECTING CONTRABAND IN CARGO AND VEHICLES.

Accurate and fast, AS&E technologies are employed by Customs agencies around the world to combat trade fraud and smuggling and to detect dirty bombs and nuclear WMD.



April 2004

New Zealand Customs Service is first Customs agency to purchase ZBV

October 2004

Z Backscatter technology selected for TSA pilot program to screen ferry-bound autos for explosives in Cape May, NJ

October 2004

AS&E begins trading on the NASDAQ under the symbol ASEI

The pivotal accomplishments of 2005 have generated the momentum to deliver long-term growth and greater shareholder value.

linear accelerators from Accuray to support AS&E's Shaped Energy high-energy inspection systems. In addition, HES' vice president and general manager relocated to Billerica, Massachusetts, as AS&E's vice president of High Energy Systems, to develop innovative new products to meet the evolving needs of our cargo security market.

LOOKING FORWARD

We set out to improve both operationally and organizationally in fiscal year 2005, taking new approaches to carry out our objectives at all levels — and we succeeded. As we take our strategic planning process to the next level for the next fiscal year, we will reinforce our emphasis on markets, strategy, and new products. As we continue to build sales channels, strengthen our field service infrastructure, and enhance R&D capabilities to accelerate growth, we also will continue to educate the marketplace on the advantages and superiority of our Z Backscatter and our other proprietary technologies. Training and development in our technical and managerial ranks will become a higher priority, and we will raise the bar on improving business fundamentals through better overall execution. We will continue to develop an even stronger customer-driven culture at AS&E.

In closing, I would like to thank our Board of Directors for their exemplary counsel and support, particularly with our 2006 Strategic Plan; our senior management team for their outstanding work implementing organizational changes, productivity improvements, and for meeting the challenging needs of our valued customers;

and our employees for their hard work and commitment to meeting customer and shareholder expectations.

On behalf of AS&E's management team and our Board of Directors, thank you for your great support in 2005. We remain absolutely committed to customer satisfaction, long-term growth, and especially to increasing shareholder value. We look confidently and enthusiastically to the future at AS&E.



Anthony R. Fabiano

President and CEO

American Science and Engineering, Inc.

August 2005



FORM 10-K



UNITED STATES
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

For the fiscal year ended March 31, 2005

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

Commission file number 1-6549

AMERICAN SCIENCE AND ENGINEERING, INC.

(Exact name of registrant as specified in its charter)

Massachusetts
(State or other jurisdiction of
incorporation or organization)

04-2240991
(IRS Employer Identification No.)

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

01821
(Zip Code)

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

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock (\$.66 ² / ₃ par value)	NASDAQ 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 No

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

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Securities Exchange Act of 1934) Yes No

The aggregate market value of voting stock held by non-affiliates of the registrant, computed using the closing sale price of common stock of \$32.95 on September 30, 2004, was \$272,894,000.

8,394,762 shares of Registrant's Common Stock were outstanding on June 3, 2005.

DOCUMENTS INCORPORATED BY REFERENCE

The registrant intends to file a definitive Proxy Statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended March 31, 2005. Portions of such Proxy Statement are incorporated by reference in Part III.

AMERICAN SCIENCE AND ENGINEERING, INC.

FORM 10-K

FOR THE PERIOD ENDED MARCH 31, 2005

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PART I

ITEM 1. BUSINESS

American Science and Engineering, Inc., a Massachusetts corporation formed in 1958 (together with its subsidiary, the “Company” or “AS&E”), develops, manufactures, markets, and sells X-ray inspection and other inspection solutions and provides maintenance, warranty, research, engineering, and training services related to these solutions.

The Company’s sophisticated X-ray inspection products are used for critical detection and security applications by seaport and border authorities, military, airport, corporate, and federal facility security providers in the United States and around the globe. These security applications include X-ray inspection and screening systems for combating terrorism, drug and weapon smuggling, trade fraud, and illegal immigration.

The Company’s objective is to distinguish itself from its competitors through technical innovations and a superior approach to detection. The Company’s patented Z[®] Backscatter technology detects plastic explosives, weapons, illegal drugs, and other contraband, even when concealed in complex backgrounds. AS&E’s Shaped Energy™ X-ray technology provides the penetration capability of high energy X-rays for dense cargoes, without the problems caused by excessive radiation. Radioactive Threat Detection (RTD) technology detects dirty bombs and nuclear devices simultaneous to the production of Z[®] Backscatter and transmission images.

Historically, the Company has focused its product development and marketing efforts on two broad markets: (i) the protection of high-risk government personnel and facilities; and (ii) the inspection and clearance of cargo, trucks and cars at seaports, borders and airports. These markets are driven by domestic and global trends in terrorism, the continuing global spread of drugs and people smuggling, and the ongoing increase in global trade creating greater incentives for duty evasion and trade fraud utilizing false cargo shipping manifests.

Beginning with the terrorist attacks on September 11, 2001, and continuing with the proliferation of global terrorism, as well as the potential threat of terrorism posed by the war in Iraq, homeland security and force protection concerns have become of paramount importance in the United States and around the world. The Company believes that homeland defense, force protection and military security initiatives will continue to provide new revenue opportunities, with additional growth in the seaports and borders, federal and military facilities, and corporate security markets.

High Energy Systems Division In 1998 the Company established the High Energy Systems division (“HES”). HES, located in Mountain View, California, developed and manufactured linear accelerators for a variety of applications and products, including a proprietary high-energy linear accelerator for the Company’s Shaped Energy technology. The linear accelerators generate high-energy X-rays by accelerating electrons from energy of approximately 20 KeV to energy of several MeV using microwave fields created in an evacuated accelerating structure. The linear accelerators’ uses include dense cargo screening, medical, scientific, and military applications, and non-destructive testing.

In January 2005, the Company completed an asset sale agreement with Accuray, Incorporated (“Accuray”) in which Accuray purchased certain assets of AS&E’s HES Division. The completed transaction gave Accuray exclusive rights to manufacture, market, and sell linear accelerators for medical applications. AS&E retained exclusive rights to market and sell these linear accelerators for security and non-destructive testing applications. As part of the transaction, AS&E entered into a supply agreement to procure the X-band linear accelerators from Accuray to support AS&E’s high energy inspection systems. In addition, Accuray assumed the lease of AS&E’s facility in Mountain View, CA and retained a majority of the HES employees.

Technology

The Company's products utilize a variety of technologies including proprietary Z[®] Backscatter technology, traditional transmission X-ray technology, Shaped Energy technology and Radioactive Threat Detection (RTD).

Z[®] Backscatter Technology All of the Company's X-ray systems utilize AS&E's patented Z[®] Backscatter technology. Backscattered X-rays refer to those X-rays that are directed toward an object and are scattered, rather than absorbed by that object. Z[®] Backscatter captures these scattered X-rays and uses them to create highly readable, photo-like images. A key aspect of Z[®] Backscatter is that objects organic in content (low atomic number or "low Z"), such as drugs, explosives, plastic weapons, or people, scatter X-rays effectively. These organic items stand out as bright objects in the Z[®] Backscatter images, making them easy to identify in even the most complex X-ray backgrounds. As a result, the Z[®] Backscatter images show these potential threats clearly. When used in combination with transmission X-ray technology, Z[®] Backscatter adds significant interpretability to a transmission image enabling an inspector to perform a quicker and more thorough examination of the object in question.

Transmission X-ray Technology Transmission X-rays are used in combination with Z[®] Backscatter in many of the Company's products. A standard transmission X-ray image results when X-rays are absorbed rather than scattered as they pass through the object under examination. When transmission X-rays pass through the parcel, container or vehicle being scanned, and are viewed on the transmission monitor, they create a "shadowgram" image, similar to the result of a medical X-ray exam. Shadowgram images are generally high resolution and result from the X-ray beam penetrating through, and being absorbed by, objects of varying densities. With transmission technology, the more objects or clutter in the path of the beam, the less differentiation of those objects is achieved.

The combination of propriety Z[®] Backscatter X-ray images and transmission X-ray images gives inspectors more information about the contents of the parcel or container by differentiating dense objects, such as metal, from low Z materials such as explosives.

Shaped Energy™ Technology This patented technology is specifically designed for use in examining densely loaded cargo containers at seaports, high threat facilities, and border crossings. The Shaped Energy (SE) detection system combines the penetration capability of a high-energy X-ray source with the photo-like quality and material discrimination features of the Company's Z[®] Backscatter imaging technology.

An important characteristic of Shaped Energy technology is that it allows for optimal penetration while maintaining one of the smallest footprints and radiation exclusion zones in the industry. Historically, high-energy X-ray systems were constrained by the necessity for large exclusion zones and heavy shielding in order to protect against the hazards of excessive radiation. The SE linear accelerator incorporates an X-ray system design that reduces the need for cumbersome shielding and exclusion zones.

Radioactive Threat Detection Technology An AS&E cargo inspection system enhanced with Radioactive Threat Detection (RTD) can be used to find radioactive threats in vehicles and cargo containers. RTD is highly sensitive to both gamma rays and neutrons—typically associated with dirty bomb materials (such as Cesium 137) or fissile material, such as weapons grade plutonium. RTD is particularly important in light of the potential terrorist threat of explosives packaged with radioactive material that scatters upon deployment, commonly referred to as "dirty bombs." AS&E's Z[®] Backscatter Van (ZBV) and MobileSearch X-ray systems, when equipped with RTD, are unique in their capabilities to perform radioactive material detection while simultaneously producing Z[®] Backscatter and/or transmission X-ray images thereby maintaining optimum throughput.

Products and Systems

The Company's products can be grouped into four different areas including the CargoSearch™ family, Z® Backscatter Systems, the ParcelSearch™ family, and Service and Support. These areas each have dedicated, accountable leadership focused on the continued enhancement of their respective products.

CargoSearch™ Inspection Systems The CargoSearch family of systems includes high-energy and medium-energy non-intrusive inspection and screening devices. The systems are primarily used for the X-ray scanning of trucks, cars, cargo containers, pallets, and air cargo at locations including border crossings, seaports, military bases, railroad centers, airports, and cargo and transportation hubs. The CargoSearch systems are designed to combat trade fraud, drug trafficking, weapons smuggling and terrorism. The CargoSearch family includes:

Shaped Energy Gantry System is a high energy transmission X-ray inspection system with optional Z® Backscatter imaging, ideal for ports, borders and high-threat facilities. With the SE Gantry, detectors move on rails past stationary vehicles and cargo. The system is bi-directional, allowing for high throughput. The SE Gantry system eliminates the need for a cargo transport system.

Shaped Energy CargoSearch™ System is a fixed site high energy transmission X-ray inspection system with optional Z® Backscatter imaging, ideal for ports, borders and high-threat facilities. The SE CargoSearch configuration provides the stability of a permanent inspection location, within a very small footprint.

MobileSearch™ System, a truck-mounted cargo and vehicle X-ray inspection system that adds flexibility, mobility and the ability to inspect cars (from one or both sides) to the basic CargoSearch concept.

PalletSearch™ System allows for the inspection of pallets to detect contraband, weapons, and explosives for high security facilities where high confidence inspection is a requirement.

Z® Backscatter Systems One advantage of Z® Backscatter technology is that it can be used as a stand-alone technology, or in combination with other technologies, including transmission, Shaped Energy, and Radioactive Threat Detection. Z® Backscatter scanning can be implemented without the use of boom-mounted receptors, allowing for rapid drive-by screening of containers and vehicles in a variety of applications without impeding the flow of commerce.

Z® Backscatter Van™ (ZBV) is a mobile X-ray screening system built into a commercially available delivery van. It utilizes AS&E's patented Z® Backscatter X-ray technology to produce photo-like images of the contents of a vehicle or cargo container, highlighting organic materials such as plastic explosives or other anomalies.

Z® Backscatter Portal is a multi-view backscatter-only, drive-through inspection system capable of scanning cars, vans, trucks, and their cargoes for threats and contraband.

ParcelSearch™ Inspection Systems ParcelSearch systems are designed for the non-intrusive X-ray scanning of parcels, baggage, and mail. They are primarily located in government facilities, airports, commercial office buildings, high-security federal facilities (research facilities and military bases) and convention centers. The ParcelSearch family includes:

Model 101VAN™, a self-contained conveyor-based parcel inspection system housed in a standard van; designed and built to the rigorous specifications of the U.S. Bureau of Customs and Border Protection.

Models 101Z™, 101ZZ™, 101GT™ and 101XL™, conveyor-based systems allowing rapid inspection of high volumes of luggage and other packages.

Model 66ZPLUS™, a compact system designed to handle small packages, including briefcases, carry-on luggage and mail.

In addition, the Company manufactures the *BodySearch™ Personnel Inspection System*. The BodySearch system offers a fast, safe, and non-intrusive way to screen individuals for weapons, drugs, and illegal contraband, concealed under clothing, providing a viable alternative to pat-down or strip searches.

Service and Support AS&E's highly skilled Field Service Engineers (FSEs) provide support services and comprehensive technical training on all of AS&E's X-ray inspection systems worldwide. FSEs are located at AS&E offices in Asia, Europe, the Middle East and North America. In addition, Technical Support is provided at the Company's headquarters in Billerica. AS&E provides comprehensive, cost-effective spare parts solutions customized for each system.

Intellectual Property

The Company relies on a combination of patent, copyright, trademark, contract and trade secret laws to establish and protect its proprietary rights in its technology. The Company has patents either issued and/or pending in the United States, Germany, Japan, the United Kingdom, China, Austria, France, Ireland, Italy, Switzerland and Egypt and under the Patent Cooperation Treaty.

In general, the Company pursues a policy of obtaining patent protection both in the United States and in selected foreign countries for subject matter we consider patentable and important to our business strategy. The Company has 50 unexpired patents issued by, and 13 patent applications pending with, the U.S. Patent and Trademark Office, as well as a number of international patents and patent applications. Over half of our issued patents have been issued in the last five years.

Generally, patents issued in the United States are effective for the longer of 17 years from the date of issue or 20 years from the earliest effective filing date of the corresponding patent application if filed prior to June 8, 1995. The duration of foreign patents varies in accordance with applicable local law. While the duration of our patents varies, we believe that the duration of our patents is adequate relative to the expected lives of our products.

The Company believes that its patents, proprietary technology, know-how, and trademarks provide substantial protection for the Company's competitive position and the Company intends to aggressively protect its intellectual property assets, by litigation or other means, as appropriate. Nevertheless, there can be no assurances that the steps taken by the Company in this regard will be adequate to prevent misappropriation or infringement of its technology or that the Company's competitors will not independently develop technologies that are substantially equivalent or superior to the Company's technology. Effective protection of intellectual property rights may be limited or unavailable in certain foreign countries. See Item 3: Legal Proceedings below.

Sales and Marketing

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

Many of the Company's systems are built for existing customers and the Company maintains an inventory of common parts and sub-assemblies for these systems in order to meet expected customer delivery requirements and spare parts requirements.

Customers

The Company has a customer list consisting of government and commercial clients from both the United States and abroad. Domestically, the Company's primary client base is comprised of agencies of the U.S. Government. Approximately 75%, 77% and 75% of the Company's sales in fiscal 2005, 2004 and 2003, respectively, were derived from either (i) contracting directly with the U.S. Government, or (ii) contracting with contractors working directly with the U.S. Government. Certain of the Company's contracts with the U.S. Government provide the U.S. Government with the standard unilateral right to terminate these contracts for convenience. To date, the Company has not experienced any material losses as a result of this contractual provision. The Company is heavily dependent upon sales to agencies of the U.S. Government and reductions or delays in procurement of the Company's systems by these agencies may have a material adverse effect on the Company.

International sales, primarily to foreign governments, accounted for approximately 15%, 12%, and 15% of the Company's total sales in fiscal 2005, 2004 and 2003, respectively, and continue to be a high priority for the Company as part of its long-term growth strategy. International sales entail longer sales cycles and project financing requirements; however the Company continues to focus on these sales as a means of reducing its dependency on sales to the U.S. Government. The Company manages its overseas risk in a number of ways, including actively increasing the number of opportunities it is pursuing at any one time and by working with international funding sources to help customers finance and secure funding of these projects. The majority of international contracts are bid in U.S. dollars. For those contracts that are bid in other currencies, the Company considers the need to engage in hedging contracts to control foreign exchange risk. There were no hedging activities in fiscal 2005, 2004 or 2003.

In fiscal year 2005, the Company had sales to three major customers, two of which were agencies of the U.S. Government and the third a subcontractor to a U.S. Government agency, which accounted for 17%, 13% and 13%, respectively, of total sales. In fiscal year 2004, the Company had sales to two major customers, both agencies of the U.S. Government, which accounted for 19% and 15%, respectively, of total sales. In fiscal year 2003, the Company had sales to one major customer, an agency of the U.S. Government, which accounted for 17% of total sales.

Competition

The Company has many competitors in the X-ray product market, including several large and well-established manufacturers of security X-ray equipment with financial and other resources greater than those of the Company. Certain X-ray security system customers select such systems based largely on price. Other customers, notably the U.S. Government and users in countries with high levels of concern over security, tend to select systems based largely on performance and detection capability. The Company's systems offer premium performance and have historically 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, including Z[®] Backscatter and Shaped Energy, and/or competitive pricing will give it a strong position to increase its sales of X-ray systems. However, a number of companies have developed products that compete with the Company's X-ray inspection products. (See "Forward-Looking Information and Factors Affecting Future Performance")

ISO 9001 Certification

In August 2003, the Company announced that its Quality Management System had been registered under the ISO 9001:2000 Standard of the International Organization for Standardization. The Company had been registered under the previous ISO standard since March 2001. ISO 9001 is an internationally recognized quality management and assurance standard.

In qualifying, the Company met or exceeded the standards for establishing a quality management system for preventing non-conformity at every level of the product life cycle, from customer order, through development and production, to installation and support.

The Company believes that demonstrating continuous quality improvement is vital for building customer satisfaction and making business processes more efficient in order to increase its competitive edge.

Component Availability

The Company has not experienced during the last year, and does not currently anticipate, any product delivery delays due to component shortages. The majority of procured components is from U.S. sources. However, the Company is dependent upon certain overseas providers of important components. No rare or exotic materials are utilized. Following the events of September 11, demand for X-ray system subcomponents increased significantly across the security industry. In response, the Company took steps to mitigate sourcing risks by working closely with its vendors to secure future component availability. In some cases, the Company has chosen to stock certain inventory components to assure future availability. These efforts also included identifying and qualifying second-source providers for several critical components on all of its product lines.

Regulatory Compliance

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

Research and Development

The Company spent approximately \$5,727,000 of its own funds for research and development during fiscal 2005, compared to \$5,535,000 and \$6,419,000 in fiscal 2004 and 2003, respectively. The fiscal 2005 research and development efforts were focused on design modifications and enhancements to existing products, the development of new applications and the conceptualization of new products.

In addition, the Company conducted government-sponsored research primarily focused on advances in X-ray systems, image analysis and integrated system development for niche security inspection problems. The Company recognized revenues of \$2,534,000, \$444,000, and \$747,000, in fiscal 2005, 2004, and 2003, respectively for these efforts. A significant amount of the Company’s government sponsored research and development contracts typically provide for a fixed fee or a 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.

Personnel

As of March 31, 2005 the Company had 286 employees as compared to 324 employees at the end of the prior year. It is the Company’s policy to have employees sign nondisclosure agreements as a condition of employment. None of the Company’s employees are represented by labor unions.

Sales Backlog

The Company’s firm (under signed contracts) sales backlog was \$72,098,000, \$33,852,000, and \$38,765,000 at March 31, 2005, March 31, 2004 and March 31, 2003, respectively.

Certain 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 partial payment to the Company for work performed. Total contracts with U.S. Government agencies and subcontractors in the backlog were \$48,127,000, \$16,645,000, and \$17,751,000 at March 31, 2005, March 31, 2004 and March 31, 2003, respectively. It is estimated that approximately 93% of the 2005 backlog will be filled within the fiscal year ending March 31, 2006.

Financial Information about Foreign and Domestic Operations and Export Sales

Most export sales are transacted in U.S. dollars, and many are either secured by irrevocable letters of credit or paid in advance. The following table shows the breakdown of net sales and contract revenues to international and domestic customers and the major regions of international activity based upon customer's country of domicile. All assets are maintained within the United States with the exception of small amounts of spares inventory and cash accounts maintained at foreign locations (less than 1% of the Company's assets).

Net Sales and Contract Revenues

	Fiscal Year					
	2005		2004		2003	
	(Dollars in thousands)					
Domestic	\$ 75,376	85%	\$ 66,848	88%	\$ 52,834	85%
International	12,938	15%	9,494	12%	9,124	15%
Net Sales and Contract Revenues	<u>\$ 88,314</u>	<u>100%</u>	<u>\$ 76,342</u>	<u>100%</u>	<u>\$ 61,958</u>	<u>100%</u>
Percent of International Revenue by Major Region:						
Middle East & Africa	15.9%		34.2%		70.6%	
Europe	21.5%		29.1%		16.8%	
Pacific Rim	62.6%		34.4%		11.7%	
All Other	—%		2.3%		0.9%	

Available Information

The Company's principal executive offices are located at 829 Middlesex Turnpike, Billerica, MA 01821; telephone number 978-262-8700; corporate web site www.as-e.com. We make available, free of charge through our website, our annual Form 10-K, current reports on Form 10-Q and Form 8-K, and amendments to these reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934 as soon as practicable. In addition, our reports, proxy and information statements and other information filed with the SEC are available at the SEC's Public Reference Room at 450 Fifth Street, NW, Washington, DC 20549 (1-800-SEC-0330), and are also available from the SEC's website at www.sec.gov.

ITEM 2. PROPERTIES

The Company's executive offices, research, manufacturing and warehouse facilities are located in Billerica, Massachusetts. In Billerica, the Company leases 115,200 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 is currently unoccupied and is available for lease from the building owner. In December 2004, the Company renewed the lease in this building. The Company will be assuming an additional 24,974 square feet in the building as well as 26,200 square feet of high bay manufacturing space to be constructed in the back of the premises. The lease provides for a tenant allowance for this high bay space and for additional refurbishments in the building. The balance of construction and renovation costs above this tenant allowance will be the responsibility of the Company. No tenant allowances were received as of March 31, 2005. At the completion of the construction and refurbishments (which are expected to be completed in February of 2006), the lease will commence for a period of 10 years. During the construction period, the Company will continue to pay rent at its historical per square foot rate with escalations as each phase of construction and occupancy of renovated space is complete.

In October 1999, the Company leased 56,000 square feet of manufacturing and office space in an office park near the main office in Billerica Massachusetts. The original lease had a term of five years. The Company has extended this to February 28, 2006 when the construction and renovations on its main building are expected to be complete. At that time, the facilities will be consolidated into the one location in Billerica.

The Company's High Energy Systems division had leased 24,733 square feet of manufacturing, research and development, and office space in Mountain View, California. The lease commenced on February 1, 2004 and had an initial term of seven years with an option to extend for an additional five-year period. In January 2005, as part of the asset sale agreement

with Accuray, Incorporated, the Company assigned its rights and obligations under this lease to Accuray. The Company is secondarily liable for the lease payments in the event of default by Accuray.

The Company believes that its facilities, with its planned renovations, construction and consolidation, are adequate and provide sufficient production capacity for their present intended purposes. The Company's facilities are currently utilized primarily on a one-shift basis. The Company is able to add additional capacity by adding second and third shifts if necessary.

ITEM 3. LEGAL PROCEEDINGS

In February 2004, L-3 Communications, Inc. ("L-3") filed a lawsuit against the Company in the United States District Court for the District of Massachusetts in Boston, seeking declaratory judgments of non-infringement and/or invalidity of two of the Company's patents—United States Patent No. 6,292,533 and No. 5,903,623. The Company initially filed a motion to dismiss the litigation for lack of subject matter jurisdiction, but was denied. The Company subsequently answered L-3's underlying complaint, vigorously opposing the plaintiff's non-infringement and invalidity claims, and recently has been engaging in substantial discovery. In December 2004, the Company also filed a motion for summary judgment with respect to one of the principle claims alleged by the plaintiff.

The Company is also subject to various legal proceedings and claims that arise in the ordinary course of business. At the present time, it is not possible to predict the outcome of these matters, however, the Company currently believes that resolving these matters will not have a material adverse impact on its financial condition, results of operations or cash flows.

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, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the NASDAQ National Market under the symbol ASEI. Prior to October 6, 2004, our common stock was traded on the American Stock Exchange. The market price range for the common stock for the last two fiscal years as reported on the NASDAQ National Market or American Stock Exchange, as applicable, is as follows:

Fiscal Year	Quarter Ended	High	Low
2005	March 31, 2005	\$ 49.50	\$ 32.40
	December 31, 2004	44.50	27.60
	September 30, 2004	33.65	18.15
	June 30, 2004	22.50	13.05
2004	March 31, 2004	\$ 16.90	\$ 10.94
	December 31, 2003	14.10	11.25
	September 30, 2003	11.70	9.05
	June 30, 2003	10.00	7.16

As of June 3, 2005, there were approximately 878 holders of record of the Company's common stock.

No cash dividends have been declared in the two most recent fiscal years and the Company does not contemplate paying any dividends in the immediate future. The Company's credit facility restricts the payment of dividends (except in shares of the Company's stock) without the consent of the bank. See "Managements Disclosure and Analysis" describing the dividend limitation.

Equity Compensation Plan Information

The following table provides information about the Company's stock option plans and the common stock that may be issued upon the exercise of options and rights under all existing equity compensation plans as of March 31, 2005.

Plan category	Number of securities to be issued upon exercise of outstanding options and rights as of March 31, 2005 (a)	Weighted-average exercise price of outstanding options and rights (b)	Number of securities remaining available for future issuance under equity compensation plans as of March 31, 2005 (excluding securities reflected in column(a))
Equity compensation plans approved by security holders:			
1995 Combination Plan	75,499	\$ 11.28	—
1999 Combination Plan	155,666	\$ 15.54	—
2000 Combination Plan	139,621	\$ 28.13	246
2002 Combination Plan	422,237	\$ 22.42	15,438
2003 Stock Plan for Non-Employee Directors	96,395	\$ 20.82	53,605
Equity compensation plans not approved by security holders:			
1996 Plan for Non-Employee Directors	21,000	\$ 10.30	—
1997 Non-Qualified Option Plan	87,417	\$ 20.29	—
1998 Non-Qualified Option Plan	68,129	\$ 20.01	18,654
Total	1,065,964	\$ 20.66	87,943

The Company has two common stock purchase plans. The Executive Equity Incentive Plan allows an executive officer of the Company to buy original issue Company common stock in any dollar amount up to the gross amount of the annual bonus granted to the officer. For every two shares purchased, the Company will grant one share of restricted stock which vests after 3 years. If the officer leaves the Company prior to 3 years, then the shares revert back to the Company. As of both March 31, 2005 and 2004, 2,251 shares have been reserved and restricted under this plan. The Reload Option Plan allows any eligible employee designated by the Board of Directors to receive new stock options (at an exercise price equal to the fair market value of the common stock on the date of sale of the stock by the employee) for every share of Company common stock sold or used to exercise stock options. There have been no issuances of stock options under the Reload Option Plan.

The Company did not repurchase any of its securities during fiscal 2005.

ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data is qualified by reference to, and should be read in conjunction with, the consolidated financial statements, including the notes thereto, and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this Annual Report.

Fiscal Year	2005	2004	2003	2002	2001
	(Dollars in thousands, except per share amounts)				
Net sales and contract revenues	\$ 88,314	\$ 76,342	\$ 61,958	\$ 65,396	\$ 67,374
Net income (loss)	11,185(1)	1,911	(7,951)	(4,512)	660
Income (loss) per share—diluted	1.31	0.26	(1.20)	(0.87)	0.13
Total assets	98,287	55,803	47,316	50,241	44,310
Stockholders’ equity	61,570	38,433	32,358	23,129	22,634

(1) Includes a gain of 5,442,000 on the sale of certain assets of the Company’s High Energy Systems division.

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

This Management’s Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our consolidated financial statements and notes thereto which appear elsewhere in this Annual Report on Form 10-K. The following discussion contains forward-looking statements and should also be read in conjunction with “Forward Looking Information and Factors Affecting Future Performance” included elsewhere in this report.

2005 Compared to 2004

Overview

American Science and Engineering, Inc. develops and manufactures state-of-the-art X-ray inspection systems for homeland security and other critical defense applications. The Company’s primary technologies are: 1) Z[®] Backscatter technology which is used to detect plastic explosives, illegal drugs, and other contraband even when artfully concealed in complex backgrounds; and 2) Shaped Energy X-ray inspection systems which combine the material discrimination features of Z[®] Backscatter with the penetration capability of high-energy X-rays for dense cargos.

Under its new leadership established in fiscal 2004, the Company in fiscal 2005 focused on its core mission—providing innovative x-ray and other inspection solutions in targeted markets, while delivering superior growth in shareholder value over the long term. In its focus on innovation, the Company expended its research and development resources on the design of modifications to its existing products and the development of product alternatives to continue to bring leading edge products to its customers. In focusing on shareholder value, the Company focused on improving its sales and marketing infrastructure, controlling overhead costs and reducing production costs to improve margins. In addition, during fiscal 2005, the Company moved the trading of its stock to the NASDAQ market system in order to increase the Company’s exposure to the investment community and improve the liquidity of its shares.

During fiscal 2005, the Company sold certain assets of its High Energy Systems Division in California. This division was focused on the production of linear accelerators for primarily the medical and security markets. As part of the sale, the Company has sold the rights to manufacture linear accelerators for medical purposes but has retained a license to produce these linear accelerators for security and non-destructive testing applications. The Company has entered into a supply agreement with the acquirer to ensure the availability of the linear accelerators used in the production of its x-ray security products. The Company recognized a gain, net of related expenses, of \$5,442,000 related to the sale of these assets in the fourth quarter of fiscal 2005, which is recorded in income from operations for the year ended March 31, 2005.

Net sales and contract revenues for fiscal 2005 increased by 16% to \$88,314,000 compared to fiscal 2004 of \$76,342,000. The Company reported net income before taxes of \$11,267,000 in fiscal 2005 compared to a net income before taxes of \$1,820,000 in the previous fiscal year. Net income for fiscal 2005 was \$11,185,000 (\$1.31 per share, on a diluted basis) as compared to a net income of \$1,911,000 (\$0.26 per share, on a diluted basis) in fiscal 2004. Backlog at March 31, 2005 was \$72,098,000, a 113% increase from the backlog of \$33,852,000 reported at the previous fiscal year end, due primarily to the orders for Z[®] Backscatter Systems which were introduced in the fiscal 2004–2005 timeframe.

Results of Operations Total net sales and contract revenues increased by \$11,972,000 or 16% in fiscal 2005 compared to fiscal 2004. Revenues related to product sales and contracts increased by \$6,462,000 or 10% due primarily to increased revenues of approximately \$31,630,000 in sales of Z[®] Backscatter Systems. These systems were introduced as a new product with four units delivered in fiscal 2004 and forty-seven units delivered primarily to governmental clients in fiscal 2005. After-market parts revenues increased by \$4,729,000 to \$6,883,000 due primarily to a \$4.4 million order in fiscal 2005 from one customer. The Company also experienced increased revenues in the contract research and development area which earned revenues of \$2,534,000 in fiscal 2005 as compared to \$444,000 in fiscal 2004 due in part to additional funding being received on contracts initiated in fiscal 2004. These product revenue increases were offset by a \$25,539,000 decrease in CargoSearch system sales as the Company had no shipments of MobileSearch systems in fiscal 2005 as compared to \$21,525,000 in revenue in fiscal 2004. This decrease in demand is attributable to a shift in focus to the Company's Z[®] Backscatter System to address the customer's current mobile security requirements. In addition, the Company's CargoSearch products experienced a \$4,014,000 decrease in revenues related to the completion of a major program in the current year which contributed significantly to 2004 revenues. The Company's ParcelSearch products experienced a \$3,633,000 decrease in revenue to \$12,848,000 in fiscal 2005 as the Company continues to see this sector of the business have decreasing demand. Revenues from the Company's High Energy Systems division decreased by \$2,814,000 from 2004 due in part to the sale of certain major contracts of this division in the fourth quarter of fiscal 2005. Service revenues increased in fiscal 2005 by \$5,510,000 or 40% to \$19,404,000 due to increases in service contract revenues related to the increased shipments of systems in 2004 and 2005.

In fiscal 2005, 85% of the Company's revenues were from domestic customers as opposed to 88% in fiscal 2004. In fiscal 2005, the Company had sales to three major customers which accounted for 43% of total sales. In fiscal year 2004, the Company had sales to two major customers which accounted for 34% of total sales.

Cost of sales and contracts of \$57,826,000 in fiscal 2005 increased by \$1,418,000 or 3% from the previous year. Cost of product sales and contracts decreased by \$602,000 or 1% as compared to the prior year. Cost of product sales and contracts totaled 68% of revenues in fiscal 2005 as compared to 76% of revenues in fiscal 2004. This decrease is primarily attributable to the Company's efforts in reducing direct product costs and to a shift in mix from lower margin products to those with higher gross margins. In addition, in the prior year, a \$1,979,000 loss was recognized on a contract recognized on a percentage of completion basis which did not incur the same losses in the current fiscal year. The cost of service revenues increased by \$2,020,000 or 23% from the prior year. Cost of service revenues totaled 55% of revenues in fiscal 2005 as compared to 63% of revenues in fiscal 2004. Service margins improved as the Company entered into several large service contracts in the current fiscal year replacing certain unprofitable service contracts and time and material service arrangements.

Selling, general and administrative expenses increased by \$2,639,000 to \$14,287,000 compared to fiscal 2004 and represented 16% of revenues in fiscal 2005 as compared to 15% of revenues in fiscal 2004. This increase can be attributed to increases in incentive compensation costs (\$953,000) related to the achievement of Company objectives, increased salaries and payroll related costs (\$990,000) as the Company increased its sales and marketing capabilities, increased marketing costs (\$121,000) and increased insurance related costs (\$114,000).

Company-funded research and development spending increased \$192,000 to \$5,727,000 in fiscal 2005, a 3% increase compared to the \$5,535,000 spent in fiscal 2004. Research and development spending was 6% of revenues in fiscal 2005 as compared to 7% of revenues in fiscal 2004. In fiscal 2005, the Company continued to focus on design modifications to its existing products and the development of product alternatives to continue to bring innovative products to its customers.

In January 2005, the Company completed an agreement to sell certain assets, comprised of inventory, fixed assets, intellectual property and certain revenue producing contracts of its High Energy Systems Division to Accuray, Incorporated ("Accuray"). The sales price for these assets totaled \$8,300,000 of which \$5,500,000 was received in cash and \$2,800,000 in the form of a promissory note, \$2,000,000 of which was secured by a letter of credit. The note receivable bears an interest rate of 7% and matures in January of 2006. The Company recognized a gain, net of related expenses, on the sale of these assets of \$5,442,000 which is included in income from operations in the year ended March 31, 2005.

Other income (expense) was \$4,649,000 in expense in fiscal 2005 as compared to \$931,000 in expense in fiscal 2004. Interest income increased by \$468,000 due to increased cash available for investment in higher return investment vehicles. This increase in other income was offset by a charge of \$5,101,000 related to the fair value mark to market charge associated with outstanding warrants issued as part of a private placement of common stock in May of 2002. During fiscal 2004, this mark to market adjustment resulted in \$1,273,000 in expense.

The Company reported pre-tax income of \$11,267,000 in fiscal 2005 as compared to a pre-tax income of \$1,820,000 in the previous fiscal year primarily due to the increased revenues and expense reductions noted above. The Company utilized certain net operating loss carryforwards and tax credits fully reserved for in prior periods to reduce its current year effective tax rate. The provision for income taxes recorded for fiscal year 2005 represents liabilities for alternative minimum taxes and foreign taxes. At March 31, 2005, the Company had deferred tax assets of \$9,740,000. The Company has applied over the last two years a full valuation allowance against its deferred tax assets. The Company has evaluated its required valuation allowance at year end based upon its three year cumulative income and its projections of future income, and has determined that it is more likely than not that its deferred tax asset will not be realized. As such, it has maintained a full valuation allowance on its deferred tax asset at March 31, 2005.

The Company reported net income of \$11,185,000 in fiscal 2005 as compared to net income of \$1,911,000 in fiscal 2004.

2004 Compared to 2003

Results of Operations Net sales and contract revenues increased by \$14,384,000 or 23% in fiscal 2004 compared to fiscal 2003. The increase in revenues was due primarily to an increase of approximately \$11,374,000 to \$36,165,000 in sales of CargoSearch systems. This increase is primarily attributable to the sale of nine more MobileSearch systems in fiscal 2004 than in fiscal 2003, the sale of the Company's first four ZBV's offset by the completion of significant fixed-site systems in the current year that had been ongoing in fiscal 2003. In contrast, ParcelSearch sales decreased by \$4,354,000 to \$16,481,000 primarily due to the continuation of the lower revenue levels experienced in the third and fourth quarter of fiscal 2003 as demand leveled off after the first and second quarter of fiscal 2003, which had increased demand following September 11th. Services revenues increased by 53% to \$13,894,000 as compared to \$9,064,000 in fiscal 2003 primarily due to new post-warranty service contracts on installed machines. The Company recorded \$444,000 in contract research and development revenues in fiscal 2004 as compared to \$747,000 in fiscal 2003. The Company's HES division increased revenues by \$3,588,000 to \$7,203,000 in fiscal 2004 as compared to \$3,615,000 in fiscal 2003 primarily due to increased demand from one major customer. The geographical mix of revenues in fiscal 2004 remained fairly constant at 88% domestic revenues as compared to 85% domestic revenues in fiscal 2003. In fiscal year 2004, the Company had sales to two major customers which accounted for 19% and 15%, respectively, of total sales. In fiscal year 2003, the Company had sales to one major customer, which accounted for 17% of total sales.

Cost of sales and contracts of \$56,408,000 in fiscal 2004 increased by \$5,399,000 or 11% from the previous year. This increase is primarily attributable to the 23% revenue increase noted above and the recognition of a \$1,979,000 loss on a contract for a first time build of a system which experienced unanticipated technical challenges. These increases in cost of sales were offset by the sales of higher margin MobileSearch units sold and improved service margins as the Company entered into several large service contracts in the current fiscal year as warranties expired and the replacement of certain unprofitable service contracts and time and material service arrangements. Included in cost of sales and contracts in fiscal 2003 was a \$3,400,000 provision for inventory obsolescence. No material amounts of inventory reserved were subsequently sold after this provision was established.

Selling, general and administrative expenses of \$11,648,000 were \$761,000 less than the previous year and represented 15% of revenues in fiscal 2004 as compared to 20% in fiscal 2003. This reduction from the prior year relates to lower consulting costs and reduced demonstration related expenditures. In fiscal 2003, the Company had an expanded demonstration tour with a MobileSearch system that was not repeated in the current year. These decreases were offset somewhat by the addition of sales and marketing personnel in the current year as well as severance and other costs incurred related to the termination of the Company's Chief Executive Officer.

Company funded research and development spending decreased to \$5,535,000 in fiscal 2004, a 14% decrease compared to the \$6,419,000 spent in fiscal 2003. Research and development spending was 7% of revenues in fiscal 2004 as compared to 10% of revenues in fiscal 2003. In fiscal 2004, the Company continued to work to control its research and development spending while continuing to focus on specific initiatives such as the Shaped Energy Gantry system, which was completed in fiscal 2004, and the Z[®] Backscatter Van, which had its first four unit shipments in the current year, and Radiation Threat Detection technology.

Other income (expense) was \$931,000 in expense in fiscal 2004 as compared to \$2,384,000 in income in fiscal 2003. In May of 2002, the Company closed on a private placement offering of common stock and warrants. A total of 1,115,000 shares were sold to accredited investors at a price of \$17.64 each. In addition, warrants to purchase an additional 295,475 shares of common stock at a price of \$23.52 were issued. These warrants include certain conversion features that require a "mark to market" adjustment that resulted in an expense of \$1,273,000 in fiscal 2004 and income of \$2,299,000 in fiscal 2003.

The Company reported pre-tax income of \$1,820,000 in the current year as compared to a pre-tax loss of \$5,495,000 in the previous fiscal year primarily due to the increased revenues and expense reductions noted above. In fiscal 2003, the Company reviewed its deferred tax assets as a whole to determine what would be realized over the next three to five years in light of historical losses incurred, and recorded a reserve of \$2,456,000 against its remaining deferred tax asset. In fiscal 2004, the Company recognized \$91,000 of tax benefit related to a tax refund from prior years.

The Company reported net income of \$1,911,000 in fiscal 2004 as compared to a net loss of \$7,951,000 in fiscal 2003.

Liquidity and Capital Resources

Cash and cash equivalents at year-end decreased by \$2,814,000 to \$15,418,000 at March 31, 2005 as compared to \$18,232,000 at March 31, 2004. Cash flow provided by operations of \$2,396,000 resulted from the following:

- Reported net income of \$11,185,000 adjusted for non-cash items of depreciation and amortization of \$1,234,000, provisions for inventory, accounts receivable and unbilled reserves of \$2,057,000, gain on sale of assets of 5,442,000 and a change in the value of warrants issued of \$5,101,000.
- The increase in inventories of \$16,660,000 was due primarily to inventory acquired for backlogged orders and long-lead material purchased for anticipated Z[®] Backscatter System orders. In addition, there was a \$6,587,000 increase in finished goods inventory from fiscal 2004 as certain units pending shipment or shipped FOB destination were in inventory at period end.
- The increase in accounts receivable of \$13,650,000 from the prior year was due primarily to two customers who had combined receivables of \$14,573,000 at fiscal year end. In April 2005, \$10,471,000 of these outstanding receivables was received upon resolution of certain billing documentation issues, with the remaining amount expected to be paid in the normal course of business.
- The decrease in unbilled costs and fees of \$3,722,000 was due to milestones billed and collected during fiscal 2005.
- The increase in customer deposits of \$6,713,000 was due to milestones received on one large percentage of completion contract as well as deposits received on certain Z[®] Backscatter system orders.
- The increase in accrued expenses and other current liabilities reflects an increase in the incentive compensation accruals of approximately \$953,000, and the increase in the warranty accrual of \$1,623,000 attributable to the increase in Z[®] Backscatter Van shipments during the current fiscal year.

Net cash of \$15,730,000 was used for investing activities in fiscal 2005. Fiscal 2005 capital expenditures totaled \$2,691,000 versus \$462,000 for fiscal 2004. Investments in fixed assets were comprised primarily of information technology, leasehold improvements, and furniture and fixtures. The Company invested \$28,653,000 in short-term investments during the year, and had maturities of \$9,987,000 on short-term investments. The Company received \$5,500,000 in cash proceeds from the sale of certain assets of the Company's High Energy Systems division.

Net cash provided by financing activities was \$10,522,000. Cash was provided primarily by proceeds received from the exercise of employee stock options and the exercise of warrants held by outside investors. Restricted cash decreased by \$230,000 from the prior year as certain stand-by letters of credit collateralized by cash expired during the year.

On November 30, 2004, the Company modified its two credit agreements with Silicon Valley Bank East. The modifications extended the credit facilities, which expired on November 30, 2004, to November 29, 2006 and reduced the export loan and security facility, guaranteed by the Export-Import Bank of the United States, from \$20.0 million to \$10.0 million. The domestic facility is a \$5.0 million domestic loan and security agreement to support the Company's routine working capital needs. Maximum borrowings for this facility are set at the lower of (a) the sum of 80% of eligible domestic accounts receivable plus 10% of finished goods inventory up to \$750,000, or; (b) \$5.0 million.

The credit facilities bear an interest rate of the greater of 4.0% or the Silicon Valley Bank prime rate (5.75% at March 31, 2005). The credit agreements are collateralized by certain assets of the Company and contain certain restrictions, including limitations on the amount of distributions that can be made to stockholders, and the disposition or encumbrances of assets, and require the maintenance of certain financial covenants. As of March 31, 2005, the Company was in compliance with these covenants.

At March 31, 2005, there were no borrowings outstanding against these credit facilities. The Company had outstanding \$300,000 in stand-by letters of credit against the domestic facility related to its building lease and \$58,000 in stand-by letters of credit against the export facility guaranteeing performance on an international project. No amounts have been drawn against these letters of credit. In addition at March 31, 2005, the Company had a restricted cash balance of \$355,000 related to certain bank required deposits related to outstanding letters of credits, bid bonds and other bank-related fees.

In recent years, the Company has funded its operations and capital expenditures with cash generated by operations, including deposits from customers on long-term projects, from proceeds received from stock issuances and option exercises, and from lines of credit available to the Company. The Company currently has no debt outstanding and believes that its cash flows from operations, cash and investments on hand and outstanding lines of credit are sufficient to meet the current and foreseeable operating requirements of the Company's business.

Contractual Obligations The Company leases various office equipment and manufacturing facilities under non-cancelable operating leases. In addition, in the normal course of business, the Company enters into purchase orders with its vendors for the purchase of materials or services to meet its production needs. (See Notes 2 and 8 to the Consolidated Financial Statements) The following table summarizes the Company's contractual obligations as of March 31, 2005.

	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 years</u>	<u>3-5 years</u>	<u>After 5 years</u>
Recorded Contractual Obligations:					
Other long-term obligations	\$ 87	\$ 17	\$ 35	\$ 26	\$ 9
Unrecorded Contractual Obligations:					
Operating Leases	15,145	1,214	2,600	2,589	8,742
Purchase Commitments	7,058	7,001	57	—	—
Total	<u>\$ 22,290</u>	<u>\$ 8,232</u>	<u>\$ 2,692</u>	<u>\$ 2,615</u>	<u>\$ 8,751</u>

Inflation The Company does not believe that inflation has had a material effect on its results of operation. There can be no assurance, however, that the Company's business will not be affected by inflation in the future.

Critical Accounting Policies

The Company considers certain accounting policies related to revenue recognition, inventories, allowances for obsolete and excess inventory, warrant liability, and income taxes to be critical policies due to the estimation processes involved in each.

Revenue Recognition The Company derives a portion of its revenue from fixed-price contracts, which require the accurate estimation of the cost and scope of each contract. The Company's fixed-site CargoSearch systems are sold under fixed-price arrangements. Revenue is recognized using percentage of completion accounting, generally using the Company's best estimate of total costs to measure the percent complete with revisions to estimates reflected in the period identified.

The Company recognizes certain other CargoSearch system sales and other product revenue in accordance with SEC Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements ("SAB 101"), modified by Emerging Issues Task Force No. 00-21, Revenue Arrangements with Multiple Deliverables, and Staff Accounting Bulletin No. 104, Revenue Recognition ("SAB 104") which requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the fee is fixed and determinable; and (4) collectibility is reasonably assured. Determination of criteria (3) and (4) are based on management's

judgments regarding the fixed nature of the fee charged for services rendered and products delivered, and the collectibility of those fees. Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected. In those instances where the Company enters into agreements involving multiple revenue elements, the agreement is divided into separate elements of accounting, the arrangement consideration is allocated to these elements based on fair value, and revenue recognition is considered separately for each individual element. The Company recognizes field service revenues as services are performed and generally recognizes revenues under maintenance contracts on a straight-line basis over the contract period which reasonably approximates the period under which the services are rendered. Revenues received in advance of services being rendered are deferred until such services have been provided.

The Company's products are generally covered by a warranty for a one-year period. The Company accrues a warranty reserve for estimated costs to provide warranty services. The Company's estimate of costs to service its warranty obligations is based on historical experience and management's expectations of future conditions. To the extent the Company experiences increased warranty claim activity or increased costs associated with servicing those claims, its warranty accrual will increase resulting in decreased gross profit.

Inventories and Related Allowance for Obsolete and Excess Inventory Inventories consist of material, labor and manufacturing overhead and are recorded at the lower of cost or net realizable value. Excessive manufacturing overhead costs such as idle facility expense, freight, handling costs and wasted material (spoilage) attributable to abnormally low volumes (levels that materially differ from budgeted production plans due primarily to changes in customer demand) are excluded from inventory and recorded as an expense in the period incurred. The Company regularly reviews inventory quantities on hand and records a provision for excess and obsolete inventory based primarily on the estimated forecast of product demand over the next twelve to eighteen months. Demand for products can fluctuate significantly. A significant increase in the demand for the Company's products could result in a short-term increase in inventory balances, while a significant decrease in demand could result in an increase in the amount of excess inventory quantities on hand. Additionally, inventory reserves require estimates of future product demand, which may materially impact the provision required for excess and obsolete inventory. In the future, if inventory were determined to be overvalued, the Company would be required to recognize such costs in its cost of goods sold at the time of such determination. Likewise, if inventory is determined to be undervalued, the Company may have over-reported costs of goods sold in previous periods and would be required to recognize such additional operating income at the time of sale. Therefore, although the Company makes every effort to ensure the accuracy of forecasts of future product demand, any significant unanticipated changes in demand or technological developments could have a significant impact on the value of its inventory and reported operating results.

Warrant Liability In fiscal 2003, the Company issued 295,475 warrants in connection with a private placement offering of common stock. As of March 31, 2005, 221,375 of these warrants remain outstanding. These warrants can be exchanged for cash under certain circumstances including a merger, sale or tender offer of the Company and as such the Company recorded the fair value of these warrants as a long-term liability on the balance sheet. The fair value of these warrants is adjusted each period with the resulting gain or loss recorded as other income (expense) in the statement of operations. The Black-Scholes method is used to value the warrants and the calculation requires the use of estimates for stock price volatility and interest rates. The Black-Scholes value of these warrants can fluctuate significantly based on the current fair market value of the Company's common stock, changes in interest rates or changes in the volatility of the Company's stock price.

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 evaluates the need for a valuation allowance against its net deferred tax assets at year end based upon its three year cumulative income and its projections of future income, and records a valuation allowance against any net deferred tax assets if it is more likely than not that they will not be realized.

New Accounting Pronouncements

In December 2004, the FASB issued SFAS No. 123(R), "Share-Based Payment" (SFAS 123(R)) which establishes accounting standards for all transactions in which an entity exchanges its equity instruments for goods and services. SFAS 123(R) revises SFAS No. 123, "Accounting for Stock-Based Compensation", supercedes Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" and amends Financial Accounting Standard No. 95, "Statement of Cash Flows". SFAS No. 123(R) generally requires the Company to measure the cost of employee services received in exchange for an award of equity instruments based on the fair value of the award on the date of the grant.

The standard requires the fair value on the grant date to be estimated using either an option-pricing model which is consistent with the terms of the award or a market observed price, if such a price exists. The resulting cost must be recognized over the period during which an employee is required to provide service in exchange for the award, which is usually the vesting period. In April 2005, the SEC deferred the effective date for SFAS 123(R) to the beginning of the first fiscal year that begins after June 15, 2005. The Company expects to adopt SFAS 123(R) on the effective date, and expects the adoption to have a material impact on its results of operations, financial position and cash flows.

In December 2004, the FASB issued SFAS No.151, "Inventory Costs," which amends part of ARB 43, "Inventory Pricing," concerning the treatment of certain types of inventory costs. The provisions of ARB No. 43 provided that certain inventory-related costs, such as double freight and re-handling, might be "so abnormal" that they should be charged against current earnings rather than be included in the cost of inventory. As amended by SFAS No. 151, the "so-abnormal" criterion has been eliminated. Thus, all such (abnormal) costs are required to be treated as current-period charges under all circumstances. In addition, fixed production overhead should be allocated based on the normal capacity of the production facilities, with unallocated overhead charged to expense when incurred. SFAS 151 is required to be adopted for fiscal years beginning after June 15, 2005. The Company does not believe its adoption will have a material impact on its results of operations, financial position and cash flows.

In December 2004, the FASB issued a FASB Staff Position (FSP) 109-1 Application of FASB 109 to the Tax Deduction on Qualified Production Activities provided by the American Jobs Creation Act of 2004. The new act provides for a special tax deduction on qualified production activities income that effectively reduces the Company's tax rate. The FASB has decided that these amounts should be recorded as a special deduction, and recorded in the year earned. The adoption of this FSP statement will not have an impact on the Company's consolidated financial statements.

Forward-Looking Information and Factors Affecting Future Performance

Some of the statements contained in this report and in the documents incorporated by reference are forward-looking statements, within the meaning of the federal securities laws, about our business and prospects. Our future results may differ materially from our past results and from those projected in the forward-looking statements due to various uncertainties and risks including but not limited to those set forth below, one-time events and other important factors disclosed previously and from time to time in our other filings with the SEC. We disclaim any obligation to update any forward-looking statements contained herein after the date of this Annual Report.

The Company's reliance on a small number of customers for a large portion of its revenues could harm its business and prospects.

The Company's business is heavily dependent on sales to a small number of customers, which include agencies of the United States government. During fiscal 2005, three customers accounted for 43% of the Company's total revenues. During fiscal 2004, four customers accounted for 51% of the Company's total revenues and during fiscal 2003, four customers accounted for 38% of the Company's total revenues. During fiscal 2005 and 2004, the Company's largest customers, agencies of the U.S. government, accounted for approximately 17% and 19% of total revenues, respectively. Certain of the Company's government contracts may be terminated at the government's discretion. The termination of the Company's relationship with one or more of its significant customers or the reduction or delay of orders of its systems by these customers would substantially reduce the Company's revenues, and its business and prospects may be harmed.

The Company conducts its business worldwide, which exposes it to a number of difficulties in coordinating its international activities and dealing with multiple regulatory environments.

The Company's revenues to international customers, including foreign governments, accounted for approximately 15%, 12% and 15% of its net revenues for the fiscal years ended March 31, 2005, March 31, 2004 and March 31, 2003, respectively and a significant number of domestic customer orders require shipments to, and services provided in, overseas locations. In addition, the Company transacts business internationally with a number of its key suppliers. As a result of the Company's worldwide business operations, it is subject to various risks, including:

- international regulatory requirements and policy changes;
- lengthy sales cycles;
- longer payment cycles by foreign customers;
- difficulties in inventory management, accounts receivable collection and the management of distributors or representatives;
- difficulties in staffing and managing foreign operations;
- geopolitical instability;
- political and economic changes and disruptions;
- favoritism towards local suppliers;
- governmental currency controls;
- interruption to transportation flow for delivery of parts to us and finished goods to our customers;
- currency exchange rate fluctuations; and
- tariff regulations

Although the Company's international sales have been denominated primarily in U.S. dollars, changes in currency exchange rates that increase the relative value of the U.S. dollar may make it more difficult for the Company to compete with foreign manufacturers on price or otherwise have a material adverse effect on its sales and operating results.

The Company's lengthy sales cycle requires it to incur significant expenses with no assurance that it will generate revenue or recover such expenses.

A substantial portion of the Company's sales depends upon the decision of governmental agencies to upgrade or expand security at border crossing inspection sites, existing airports, seaports and other facilities. Accordingly, a portion of the Company's product sales is subject to delays associated with the lengthy approval processes that often accompany such capital expenditures. During these approval periods, the Company expends significant financial and managerial resources in anticipation of future orders that may not occur. If the Company fails to receive an order after expending these resources, it may be unable to generate sufficient revenue to recover the costs incurred and its business and prospects may be harmed.

The Company's business is dependent upon governmental policies and appropriations.

The Company's largest customers are government agencies and demand for its products is dependent upon national priorities and governmental initiatives. These priorities and initiatives are subject to change from time to time in response to the economic and political environment. The Company is also exposed to the United States budget approval and appropriation cycle, which may be subject to significant and unpredictable delays. If demand for the Company's products is reduced because of a change in economic or political conditions, or if there are delays in receiving governmental approvals and appropriations, sales of the Company's products may be adversely affected, and its business and prospects may be harmed.

Changes in governmental regulations may reduce demand for the Company's products or increase its expenses.

The Company competes in markets in which the Company or its customers must comply with federal, state, local and foreign regulations, such as health and safety regulations. The Company develops, configures and markets its products to meet its customers' needs created by these regulations. Any significant change in these regulations could reduce demand for the Company's products or increase its costs to comply with new regulations, both of which may adversely affect its operating results.

The Company's reliance on only a limited number of suppliers for some key components for its products could harm its business and prospects.

The Company relies on only a limited number of suppliers for some key components for its products. The Company's reliance on limited supply sources reduces its control over timely delivery, price increases, reliability, and quality of critical components. Obtaining alternative sources of supply of these key components could involve significant delays and other costs, and may not be available to the Company on reasonable terms, if at all. If the Company changes any of its suppliers, the potential new supplier would be required to go through a qualification process, creating potential delays or reductions in product shipments. The failure of any supplier to provide quality and timely components at an acceptable price, or an interruption of supplies from such a supplier could result in lost or deferred sales, which would harm the Company's business and prospects.

Fluctuations in the Company's quarterly operating results may cause its stock price to fluctuate.

Given the nature of the markets in which the Company participates, it cannot reliably predict future revenue and profitability. A high proportion of the Company's costs are fixed, due in part to its significant sales, research and development, and manufacturing costs. As a result of its fixed costs, small declines in revenue could disproportionately affect the Company's operating results and stock price in a quarter. Factors that may affect the Company's quarterly operating results and the market price of its common stock include:

- demand for and market acceptance of its X-ray inspection systems;
- lengthy sales cycles and the effect of large orders;
- changes in political agendas or national priorities;
- adverse changes in the level of economic activity in regions in which the Company does business;
- political unrest in the regions where the Company transacts business;
- adverse changes in industries on which the Company is particularly dependent;
- competitive pressures resulting in lower selling prices for its products;
- delays or problems in the introduction of new products;
- the Company's competitors' announcement or introduction of new products, services or technological innovations;
- variations in the Company's product mix;
- the timing and amount of the Company's expenditures in anticipation of future sales;
- increased costs of raw materials or supplies; and
- changes in the volume or timing of product orders.

The Company could incur substantial costs as a result of product liability claims and adverse publicity if its X-ray inspection systems fail to detect bombs, explosives, weapons, contraband or other threats to personal safety.

If the Company's X-ray inspection systems fail to detect the presence of bombs, explosives, weapons, contraband or other threats to personal safety, the Company could be subject to product liability claims and negative publicity, which could result in increased costs, reduced sales, and a decline in the market price of the Company's common stock. There are many factors beyond the Company's control that could result in the failure of its products to detect the presence of bombs, explosives, weapons, contraband or other threats to personal safety. Examples of these factors include operator error or misuse of or malfunction of its equipment. The failure of the Company's systems to detect the presence of these dangerous materials may lead to personal injury, loss of life, and extensive property damage and resulting in potential claims against the Company.

The Company's insurance may be insufficient to protect it from product liability claims.

The Company's product liability and umbrella liability insurance may be insufficient to protect it from product liability claims. Moreover, there is a risk that product liability insurance will not continue to be available to the Company at a reasonable cost, if at all. If liability claims exceed the Company's current or available insurance coverage, its business and prospects may be harmed. Regardless of the adequacy of the Company's product liability insurance protection, any significant claim may have an adverse affect on its industry and market reputation, leading to a substantial decrease in demand for its products and reduced revenues.

The Company may not be able to fund its research and development activities.

The Company generates funds for its research and development activities from operations, private sources and the government. The Company may be unable to generate the funds necessary to support its research and development activities if it does not generate sufficient funds from operations, other potential private sources, or the government. The Company may not successfully compete with other companies and research institutions for government funding and funding from other private sources. Additionally, government-funding priorities are subject to frequent changes. For example, in fiscal 2005 and 2004, the Company recorded \$2,534,000 and \$444,000, respectively, for government-sponsored research and development. There is no guarantee that the Company will receive funds for government-sponsored research in the future. If the Company is unable to fund its research and development activities through its operations or from outside sources, the Company may be unable to continue to innovate or bring its innovations to market on a timely or cost effective basis, or its innovations may be surpassed by other competitors or new technologies.

The Company's success depends on new product development.

The Company's continuing research and development program is designed to develop new products and to enhance and improve its current products. The Company plans to expend significant resources on the development of its new products. The successful development of its products and product enhancements is subject to numerous risks, both known and unknown, including:

- unanticipated delays;
- access to capital;
- budget over-runs;
- technical problems; and
- other difficulties that could result in the abandonment or substantial change in the design, development and commercialization of new products and product enhancements, including for example, changes requested or required by governmental and regulatory agencies.

Given the uncertainties inherent with product development and introduction of X-ray inspection systems, the Company cannot assure that its product development efforts will be successful on a timely basis or within budget, if at all. The Company's failure to develop new products and product enhancements on a timely basis or within budget would harm its business and prospects.

The Company's success depends upon its ability to adapt to rapid changes in technology and customer requirements.

The market for the Company's products has been characterized by rapid technological changes, frequent product introductions, and evolving industry standards and customer requirements. The Company believes that these trends will continue into the foreseeable future. The Company's success will depend, in part, upon its ability to enhance its existing products, successfully develop new products that meet changing customer and regulatory requirements and gain market acceptance. If the Company fails to do so, its products may be rendered obsolete or uncompetitive by new industry standards or changing technology, in which case its revenue and operating results would suffer. In developing any new product, the Company may be required to make a substantial investment before it can determine the commercial viability of the new product. If the Company fails to accurately foresee its customers' needs and future activities, it may invest heavily in research and development of products that do not lead to significant revenue.

The Company may not be able to compete successfully.

A number of companies have developed products that compete with the Company's X-ray inspection products. Many of the Company's competitors are larger and have greater financial resources than it does. Some of its competitors have more extensive research, marketing and manufacturing capabilities and greater technical and personnel resources than the Company does, and may be better positioned to continue to improve their technology in order to compete in an evolving industry. The Company's failure to compete successfully could decrease demand for its products or make its products obsolete.

In the inspection systems market, competition is based primarily on the following factors:

- product performance, functionality and quality;
- price;
- the overall costs of the system;
- prior customer relationships;
- technological capabilities of the product;
- certification by government authorities;
- local market presence; and
- breadth of the sales and service organization.

To remain competitive, the Company must develop new products and periodically enhance its existing products in a timely manner. The Company anticipates that it may have to adjust the prices of some of its products to stay competitive. In addition, new competitors may emerge, and entire product lines may be threatened by new technologies or market trends that reduce the value of these product lines.

The Company's business could be harmed if it is unable to protect its intellectual property.

The Company relies primarily on a combination of trade secrets, patents, copyrights, trademarks, licensing arrangements and confidentiality procedures to protect its technology. Despite its precautions, the steps the Company has taken to protect its technology may be inadequate. Existing trade secret, patent, trademark and copyright laws offer only limited protection. The Company's patents could be invalidated or circumvented. The laws of some foreign countries in which the Company's products are or may be developed, manufactured or sold may not protect its products or intellectual property rights to the same extent as do the laws of the United States. This may make the possibility of piracy of the Company's technology and products more likely. The Company cannot assure that the steps it has taken to protect its intellectual property will be adequate to prevent misappropriation of its technology. The Company's business could be harmed if it is unable to protect its intellectual property.

The Company's business may be materially and adversely affected by infringement claims initiated by the Company or its competitors.

Initiating or defending against the enforcement of the Company's intellectual property rights may result in significant, protracted, and costly litigation. The Company has previously been involved in various litigations involving its intellectual property and has been successful in protecting such interests to date. However, the Company is currently involved in civil litigation filed by a competitor seeking a declaratory judgment that the competitor's product did not infringe upon certain of the Company's patents. The Company expects intellectual property disputes to be an ordinary part of its business for the foreseeable future. The Company may initiate claims or litigation against third parties for infringement of its intellectual property rights, or to establish the validity of its property rights. There can be no assurance that the Company will prevail in any such action. Litigation by or against the Company could result in significant expense to it and divert the efforts of technical and management personnel, whether or not such litigation results in a favorable outcome for the Company. In the event of an adverse result in any such litigation, the Company could be required to pay substantial damages, cease the manufacture, use and sale of infringing products, expend significant resources to develop non-infringing technology, discontinue the use of certain processes, or obtain licenses for the infringing technology. If a license were required, the Company cannot assure that it would be able to obtain one on commercially reasonable terms, if at all. The Company cannot assure that it will be successful in developing non-infringing technology or that the cost or time required to develop such technology will be reasonable.

The Company's success depends on its ability to attract and retain qualified management professionals.

During the fiscal years 2004 and 2005, the CEO and certain other members of our senior management team left the Company. The Company subsequently recruited what it believes to be a highly qualified team of executives to join the Company. The Company's future success will continue to depend in large measure upon the continued contributions of its senior management team and other key personnel. If we lose professionals or are unable to attract new talent, we will not be able to maintain our position in the market or grow our business.

Future sales of the Company's common stock by existing stockholders could depress the market price of the Company's common stock.

Substantially all of the Company's outstanding shares of common stock are freely tradable without restriction or further registration. Affiliates must sell all shares they own in compliance with the volume and other requirements of Rule 144, except for the holding period requirements. Nevertheless, sales of substantial amounts of common stock by the Company's stockholders, or even the potential for such sales, may cause the market price of the Company's common stock to decline and could impair the Company's ability to raise capital through the sale of the Company's equity securities.

Existing external financing may not be available in the future.

The Company may require additional capital to finance continuing operations. The Company cannot assure that operations will continue to be profitable, that it will generate levels of revenues and cash flows sufficient to fund operations, or, if necessary, that the Company will be able to obtain additional financing on satisfactory terms, if at all. Any existing financing arrangements may not be available or sufficient to meet the Company's cash needs or may not be available in the future, or, if available, at a cost that the Company believes is reasonable.

The volatility of the Company's stock price could adversely affect an investment in the Company's common stock.

The market price of the Company's common stock has been, and may continue to be, highly volatile. The Company believes that a variety of factors could cause the price of the Company's common stock to fluctuate, perhaps substantially, including:

- announcements of developments related to the Company's business;
- quarterly fluctuations in the Company's actual or anticipated operating results and order levels;
- general conditions in the worldwide economy;
- announcements of technological innovations;

- new products or product enhancements by the Company or its competitors;
- developments in patents or other intellectual property rights and litigation; and
- developments in the Company's relationships with its customers and suppliers

In addition, in recent years the stock market in general and the markets for shares of small capitalization and "high-tech" companies in particular, have experienced extreme price fluctuations which have often been unrelated to the operating performance of affected companies. Any such fluctuations in the future could adversely affect the market price of the Company's common stock.

Provisions in the Company's articles of organization and the Company's shareholder rights plan may have the effect of discouraging advantageous offers for the Company's business or common stock, and limit the price that investors might be willing to pay in the future for shares of the Company's common stock.

Provisions in the Company's articles of organization and the Company's shareholder rights plan may have the effect of discouraging or preventing a change in control. These provisions could limit the price that certain investors might be willing to pay in the future for shares of the Company's common stock. Specifically, the Company's articles of organization authorize its Board of Directors to issue up to 100,000 shares of preferred stock in one or more series, to fix certain rights, preferences, privileges and restrictions granted to or imposed upon any wholly unissued shares of preferred stock, to fix the number of shares constituting any such series, and to fix the designation of any such series, without further vote or action by its shareholders. The terms of any series of preferred stock, which may include priority claims to assets and dividends and special voting rights, could adversely affect the rights of the holders of common stock and thereby reduce the value of the Company's common stock. The Company has no present plans to issue shares of preferred stock. The Company has in place a shareholder rights plan, adopted in 1998, under which its stockholders are entitled to purchase shares of its preferred stock under certain circumstances. These circumstances include the purchase of 15% or more of the outstanding shares of common stock by a person or group, or the announcement of a tender or exchange offer to acquire 15% or more of the outstanding common stock. The shareholder rights plan may have the effect of impeding or preventing certain types of transactions involving a change in control of the Company that could be beneficial to the stockholders.

The Company does not plan to pay dividends on its common stock.

The Company has not declared or paid a cash dividend on its common stock in recent years, and it does not expect to declare or pay any cash dividends in the foreseeable future. The Company intends to retain all earnings, if any, in order to expand its operations. Investors should not rely on dividends from the common stock as a possible source of income.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The Company is subject to interest rate risk on its credit facilities which have variable interest rates tied to the Prime Rate. As of March 31, 2005, the Company had no variable interest rate debt outstanding. See Note 3 of Notes to Consolidated Financial Statements for a discussion of our long-term indebtedness.

The cash accounts for the Company's operations in Singapore, Hong Kong, England, and Abu Dhabi are maintained in Singapore dollars, Hong Kong dollars, pounds sterling and dirhams, respectively. Foreign currency accounts are marked to market at current rates that resulted in immaterial translation adjustments to stockholders' equity. The gains and losses from foreign currency transactions are included in the statement of operations for the period and were also immaterial. A hypothetical 10% change in foreign currency rates would not have a material impact on the Company's results of operations or financial position.

As of March 31, 2005, the Company holds short-term investments consisting of money market funds and U.S. government and government agency bonds. The Company's primary objective with its investment portfolio is to invest available cash while preserving principal and meeting liquidity needs. These investments have an average interest rate of approximately 2.86% and are subject to interest rate risk. As a result of the average maturity and conservative nature of the investment portfolio, a sudden change in interest rates would not have a material adverse effect on the value of these investments.

In fiscal 2003, the Company issued 295,475 warrants in connection with a private placement offering of common stock. As of March 31, 2005, 221,375 of these warrants remain outstanding. These warrants can be exchanged for cash under certain circumstances including a merger, sale or tender offer of the Company and as such a liability equal to Black-Scholes value of the warrants is recorded on the balance sheet. Changes in the fair value of the warrants are recorded as other income (expense). The Black-Scholes value of these warrants can fluctuate significantly based on the current fair market value of the Company's common stock. A 10% change in the fair market value of the Company's common stock, holding other assumptions constant, would have approximately an \$875,000 positive or negative impact on earnings.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements and supplementary financial information listed in the Index to Consolidated Financial Statements on page 37 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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

a) Evaluation of Disclosure Controls and Procedures.

As of the end of the period covered by this report, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, the Company reviewed and evaluated the effectiveness of the Company's disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 as amended (the "Exchange Act"). Based upon their evaluation and as a result of the material weakness described below, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were not effective as of March 31, 2005 to ensure that information required to be disclosed by the Company in the reports filed and submitted by it under the Exchange Act is recorded, processed, summarized and reported within the time period specified in the Securities and Exchange Commission's rules and forms, and to provide reasonable assurance that information required to be disclosed by the Company in such reports is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

b) Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our management conducted an evaluation of the effectiveness of our internal control over financial reporting using the framework in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

A material weakness is a control deficiency, or combination of control deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected. As of March 31, 2005, the Company did not maintain effective controls over the review and monitoring of the accounting presentation of the sale of long-lived assets. Specifically, the Company incorrectly classified the gain on sale of long-lived assets as other income and should have classified such gain as a component of income from operations. This control deficiency resulted in an audit adjustment to the Company's fourth quarter consolidated financial statements. Additionally, this control deficiency could result in the misstatement of the aforementioned accounts that would result in a material misstatement to the annual or interim financial statements that would not be prevented or detected. Accordingly, management determined that this control deficiency constitutes a material weakness. Because of the material weakness described above, management has concluded that the Company did not maintain effective internal control over financial reporting as of March 31, 2005 based on the criteria established in *Internal Control-Integrated Framework* issued by the COSO.

PricewaterhouseCoopers LLP, our independent registered public accounting firm, has audited management's assessment of the effectiveness of the Company's internal control over financial reporting and the effectiveness of our internal control over financial reporting as of March 31, 2005, and has issued their report which is included herein.

c) Changes in Internal Controls over Financial Reporting

There have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934, during the quarter ended March 31, 2005 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE COMPANY

Code of Conduct

The Company has adopted a Code of Conduct that applies to our board of directors, chief executive officer, chief financial officer, and all employees of the Company. The Company's Code of Conduct is posted on our website at www.as-e.com and may be accessed in the Corporate Governance section of the Investor Information page. The Company intends to satisfy the disclosure requirement under Item 10 of Form 8-K, regarding an amendment to, or waiver from, our Code of Conduct, by posting such information on our website at the location specified above.

The other information called for by this item is hereby incorporated by reference from the Registrant's definitive Proxy Statement relating to the 2005 Annual Meeting of Stockholders, which Proxy Statement will be filed with the Securities and Exchange Commission on or about July 28, 2005.

ITEM 11. EXECUTIVE COMPENSATION

The information called for by this item is hereby incorporated by reference from the Registrant's definitive Proxy Statement relating to the 2005 Annual Meeting of Stockholders, which Proxy Statement will be filed with the Securities and Exchange Commission on or about July 28, 2005.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information called for by this item is hereby incorporated by reference from the Registrant's definitive Proxy Statement relating to the 2005 Annual Meeting of Stockholders, which Proxy Statement will be filed with the Securities and Exchange Commission on or about July 28, 2005.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information called for by this item is hereby incorporated by reference from the Registrant's definitive Proxy Statement relating to the 2005 Annual Meeting of Stockholders, which Proxy Statement will be filed with the Securities and Exchange Commission on or about July 28, 2005.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information called for by this item is hereby incorporated by reference from the Registrant's definitive Proxy Statement relating to the 2005 Annual Meeting of Stockholders, which Proxy Statement will be filed with the Securities and Exchange Commission on or about July 28, 2005.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

The financial statements listed in the Index to Consolidated Financial Statements on page 37 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 58 are filed as part of this report, and such Index is incorporated in this Item by reference.

**AMERICAN SCIENCE AND ENGINEERING, INC., AND SUBSIDIARY
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

(Submitted in answer to Item 8 and Item 15 of Form 10-K, Securities and Exchange Commission)

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Financial statement 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 Registered Public Accounting Firm

To the Board of Directors and Stockholders of
American Science and Engineering, Inc.:

We have completed an integrated audit of American Science and Engineering, Inc.'s fiscal 2005 consolidated financial statements and of its internal control over financial reporting as of March 31, 2005 and audits of its fiscal 2004 and 2003 consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

Consolidated financial statements

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, stockholders' equity and cash flows present fairly, in all material respects, the financial position of American Science and Engineering, Inc. and its subsidiary at March 31, 2005 and 2004, and the results of their operations and their cash flows for each of the three years in the period ended March 31, 2005 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Internal control over financial reporting

Also, we have audited management's assessment, included in Management's Report on Internal Control over Financial Reporting, appearing under Item 9A, that American Science and Engineering, Inc. and its subsidiary did not maintain effective internal control over financial reporting as of March 31, 2005, because the Company did not maintain effective controls over the review and monitoring of the accounting presentation on the sale of long-lived assets, based on criteria established in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express opinions on management's assessment and on the effectiveness of the Company's internal control over financial reporting based on our audit.

We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is a control deficiency, or combination of control deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected. The following material weakness has been identified and included in management's assessment. As of March 31, 2005, the Company did not maintain effective controls over the review and monitoring of the accounting presentation on the sale of long-lived assets. Specifically, the Company incorrectly classified the gain on sale of long-lived assets as other income and should have classified such gain as a component of income from operations. This control deficiency resulted in an audit adjustment to the Company's fourth quarter consolidated financial statements. Additionally, this control deficiency could result in the misstatement of the aforementioned accounts that would result in a material misstatement to the annual or interim financial statements that would not be prevented or detected. Accordingly, management determined that this control deficiency constitutes a material weakness. This material weakness was considered in determining the nature, timing, and extent of audit tests applied in our audit of the fiscal 2005 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements.

In our opinion, management's assessment that American Science and Engineering, Inc. and its subsidiary did not maintain effective internal control over financial reporting as of March 31, 2005, is fairly stated, in all material respects, based on criteria established in *Internal Control-Integrated Framework* issued by the COSO. Also, in our opinion, because of the effect of the material weakness described above on the achievement of the objectives of the control criteria, American Science and Engineering, Inc. and its subsidiary has not maintained effective internal control over financial reporting as of March 31, 2005, based on criteria established in *Internal Control-Integrated Framework* issued by the COSO.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
June 17, 2005

American Science and Engineering, Inc. and Subsidiary
Consolidated Balance Sheets
March 31, 2005 and 2004

(Amounts in thousands, except share and per share amounts)

	2005	2004
Assets		
Current assets:		
Cash and cash equivalents	\$ 15,418	\$ 18,232
Restricted cash and investments	355	585
Short-term investments	20,590	1,845
Accounts receivable, net of allowances of \$501 in 2005 and \$250 in 2004	28,170	14,771
Unbilled costs and fees, net of allowances of \$76 in 2005 and \$394 in 2004	691	4,468
Note receivable	2,800	—
Inventories	24,941	11,390
Prepaid expenses and other current assets	1,957	1,890
Total current assets	94,922	53,181
Equipment and leasehold improvements, net	3,329	2,585
Other assets, net	36	37
Total assets	\$ 98,287	\$ 55,803
 Liabilities & Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 6,743	\$ 3,690
Accrued salaries and benefits	3,158	1,954
Accrued warranty costs	2,322	699
Deferred revenue	3,634	2,020
Customer deposits	11,132	4,419
Other current liabilities	3,001	1,875
Total current liabilities	29,990	14,657
Warrant liability	6,137	2,093
Other long term liabilities	590	620
Total liabilities	36,717	17,370
 Commitments and contingencies (Notes 2 and 8)		
Stockholders' equity:		
Preferred stock, no par value		
Authorized—100,000 shares		
Issued—None	—	—
Common stock, \$0.66 ² / ₃ par value		
Authorized—20,000,000 shares		
Issued and outstanding 8,341,480 shares in 2005 and 7,415,660 shares in 2004	5,560	4,943
Capital in excess of par value	54,098	42,683
Accumulated other comprehensive income	(12)	14
Unearned compensation	(169)	(115)
Retained earnings (accumulated deficit)	2,093	(9,092)
Total stockholders' equity	61,570	38,433
Total liabilities and stockholders' equity	\$ 98,287	\$ 55,803

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 31, 2005, 2004, and 2003

(Amounts in thousands except per share amounts)

	<u>2005</u>	<u>2004</u>	<u>2003</u>
Net sales and contract revenues:			
Net product sales and contract revenues	\$ 68,910	\$ 62,448	\$ 52,894
Net service revenues	19,404	13,894	9,064
Total net sales and contract revenues	<u>88,314</u>	<u>76,342</u>	<u>61,958</u>
Cost of sales and contracts:			
Cost of product sales and contracts	47,074	47,676	42,610
Cost of service revenues	10,752	8,732	8,399
Total cost of sales and contracts	<u>57,826</u>	<u>56,408</u>	<u>51,009</u>
Gross profit	<u>30,488</u>	<u>19,934</u>	<u>10,949</u>
Selling, general and administrative	14,287	11,648	12,409
Research and development	5,727	5,535	6,419
Gain on sale of assets	(5,442)	—	—
Operating expenses	<u>14,572</u>	<u>17,183</u>	<u>18,828</u>
Operating income (loss)	<u>15,916</u>	<u>2,751</u>	<u>(7,879)</u>
Other income (expense):			
Interest and investment income	575	107	95
Interest expense	—	—	(86)
Other, net	(123)	235	76
Change in warrant valuation	(5,101)	(1,273)	2,299
Total other income (expenses)	<u>(4,649)</u>	<u>(931)</u>	<u>2,384</u>
Income (loss) before provision for (benefit from) income taxes	11,267	1,820	(5,495)
Provision for (benefit from) income taxes	<u>82</u>	<u>(91)</u>	<u>2,456</u>
Net income (loss)	<u>\$ 11,185</u>	<u>\$ 1,911</u>	<u>\$ (7,951)</u>
Income (loss) per share—Basic	\$ 1.41	\$ 0.27	\$ (1.20)
—Diluted	\$ 1.31	\$ 0.26	\$ (1.20)
Weighted average shares—Basic	7,937	7,155	6,627
—Diluted	8,565	7,345	6,627

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

American Science and Engineering, Inc. and Subsidiary
Consolidated Statements of Stockholders' Equity
For the Years Ended March 31, 2005, 2004, and 2003

(Amounts in thousands, except share amounts)

	Common Stock		Capital in Excess of Par Value	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income	Unearned Compensation	Total	Comprehensive Income
	Shares	Par Value						
Balance, March 31, 2002	5,549,478	\$ 3,699	\$ 22,482	\$ (3,052)	\$ —	\$ —	\$ 23,129	\$ —
Net loss	—	—	—	(7,951)	—	—	(7,951)	(7,951)
Private placement issuance of stock	1,115,000	743	14,553	—	—	—	15,296	—
Exercise of stock options	175,347	117	1,355	—	—	—	1,472	—
Issuance of stock	31,904	22	390	—	—	—	412	—
Balance, March 31, 2003	6,871,729	4,581	38,780	(11,003)	—	—	32,358	(7,951)
Net Income	—	—	—	1,911	—	—	1,911	1,911
Exercise of stock options	477,619	318	3,220	—	—	—	3,538	—
Issuance of stock under employee compensation plans	39,698	26	374	—	—	—	400	—
Issuance of restricted stock	26,614	18	309	—	—	(327)	—	—
Translation adjustment	—	—	—	—	14	—	14	14
Amortization of unearned compensation	—	—	—	—	—	212	212	—
Balance, March 31, 2004	7,415,660	4,943	42,683	(9,092)	14	(115)	38,433	1,925
Net income	—	—	—	11,185	—	—	11,185	11,185
Exercise of stock options and warrants	900,566	600	10,749	—	—	—	11,349	—
Issuance of stock under employee compensation plans	17,296	12	424	—	—	—	436	—
Issuance of restricted stock	7,958	5	242	—	—	(247)	—	—
Translation adjustment	—	—	—	—	(2)	—	(2)	(2)
Amortization of unearned compensation	—	—	—	—	—	193	193	—
Unrealized gain (loss) on available for sale securities	—	—	—	—	(24)	—	(24)	(24)
Balance, March 31, 2005	8,341,480	\$ 5,560	\$ 54,098	\$ 2,093	\$ (12)	\$ (169)	\$ 61,570	\$ 11,159

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 31, 2005, 2004, and 2003

(Amounts in thousands)

	<u>2005</u>	<u>2004</u>	<u>2003</u>
Cash flows from operating activities:			
Net income (loss)	\$ 11,185	\$ 1,911	\$ (7,951)
Adjustments to reconcile net income (loss) to net cash provided by (used for) operating activities:			
Depreciation and amortization	1,234	1,612	2,185
Provisions for contracts, inventory, and accounts receivable reserves	2,057	988	3,753
Gain on sale of assets	(5,442)	—	—
Change in value of warrants	5,101	1,273	(2,299)
Realized gain on short-term investments	(8)	(51)	—
Amortization of bond discount	(95)	—	—
Stock compensation expense	193	212	14
Deferred income taxes	—	—	3,298
Change in assets and liabilities:			
Accounts receivable	(13,650)	(4,299)	(3,421)
Unbilled costs and fees	3,722	(125)	1,113
Inventories	(16,660)	3,397	1,650
Prepaid expenses and other assets	(67)	(966)	(71)
Accounts payable	3,053	(1,637)	(1,230)
Accrued income taxes	15	—	(763)
Deferred revenue	1,577	(135)	958
Customer deposits	6,713	1,672	(2,128)
Other current liabilities	3,461	1,696	165
Non-current liabilities	<u>7</u>	<u>(57)</u>	<u>(168)</u>
Total adjustments	<u>(8,789)</u>	<u>3,580</u>	<u>3,056</u>
Net cash provided by (used for) operating activities	<u>2,396</u>	<u>5,491</u>	<u>(4,895)</u>
Cash flows from investing activities:			
Maturities of short-term investments	9,987	5,063	—
Purchases of short-term instruments	(28,653)	(2,319)	(4,538)
Proceeds from sale of assets	5,500	—	—
Purchases of property and equipment	(2,691)	(462)	(1,155)
Disposals of property and equipment	<u>127</u>	<u>12</u>	<u>—</u>
Cash provided by (used for) investing activities	<u>(15,730)</u>	<u>2,294</u>	<u>(5,693)</u>
Cash flows from financing activities:			
Decrease (increase) in restricted cash and investments	230	1,310	(1,895)
Repayment of line of credit	—	—	(9,319)
Proceeds from issuance of common stock and warrants, net	1,743	—	18,415
Proceeds from exercise of stock options	<u>8,549</u>	<u>3,538</u>	<u>1,381</u>
Cash provided by financing activities	<u>10,522</u>	<u>4,848</u>	<u>8,582</u>
Foreign currency translation effect on cash	<u>(2)</u>	<u>14</u>	<u>—</u>
Net increase (decrease) in cash and cash equivalents	(2,814)	12,647	(2,006)
Cash and cash equivalents at beginning of year	<u>18,232</u>	<u>5,585</u>	<u>7,591</u>
Cash and cash equivalents at end of year	<u>\$ 15,418</u>	<u>\$ 18,232</u>	<u>\$ 5,585</u>
Supplemental disclosures of cash flow information:			
Interest paid	\$ —	\$ —	\$ 124
Income taxes paid	\$ 166	\$ —	\$ —
Non-cash transactions:			
Issuance of stock in lieu of fees	\$ 683	\$ 727	\$ 412

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

American Science and Engineering, Inc. and Subsidiary
Notes to Consolidated Financial Statements

1. Nature of Operations and Summary of Significant Accounting Policies

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

Use of Estimates: The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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.

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

Cash and Cash Equivalents: The Company considers all investments with original maturities of 90 days or less to be cash equivalents. Cash and cash equivalents are carried at cost, which approximates fair market value at year-end 2005 and 2004. The Company has repurchase agreements with its banks. The repurchase agreements are collateralized by investments principally consisting of U.S. Government Agency securities in the amount of at least 100% of such obligation.

Restricted Cash and Investments: The Company’s Export and Security Agreements with its banks require certain cash and investment balances to be restricted as collateral against outstanding standby letters of credit. The restricted cash amounts with Silicon Valley Bank are in the form of certificates of deposits that mature beyond 90 days.

Short-term Investments: Short-term investments consist of investments in money market funds and U.S government and government agency bonds. These investments are classified as available-for-sale and are recorded at their fair market values. The unrealized holding gains or losses on these securities are included in stockholders’ equity until realized.

Accounts Receivable: The allowance for doubtful accounts reflects our best estimate of probable losses inherent in the accounts receivable balance. We determine the allowance based on known troubled accounts, historical experience, and other currently available evidence. Activity in the allowance for doubtful accounts is as follows (in thousands):

	Balance at Beginning of Year	Charged to Costs and Expenses	Deductions from Reserves	Balance at At End of Year
2005	\$ 250	\$ 251	\$ —	\$ 501
2004	\$ 246	\$ 27	\$ 23	\$ 250
2003	\$ 111	\$ 138	\$ 3	\$ 246

Inventories: Inventories consist of material, labor and manufacturing overhead and are recorded at the lower of cost, using the weighted average cost method, or net realizable value. Excessive manufacturing overhead costs attributable to idle facility expenses, freight, handling costs and wasted material (spoilage) attributable to abnormally low production volumes (levels that materially differ from budgeted production plans due primarily to changes in customer demand) are excluded from inventory and recorded as an expense in the period incurred.

The components of inventories at March 31, 2005 and 2004 were as follows (in thousands):

	2005	2004
Raw materials, completed subassemblies and spare parts	\$ 12,763	\$ 7,089
Work-in-process	5,458	4,168
Finished goods	6,720	133
	<u>\$ 24,941</u>	<u>\$ 11,390</u>

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

Equipment and Leasehold Improvements: The Company provides for depreciation and amortization of its fixed assets on a straight-line basis over estimated useful lives of 3-11 years. Expenditures for normal maintenance and repairs are charged to expense as incurred. Significant additions, renewals or betterments that extend the useful lives of the assets are capitalized at cost. 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.

Equipment and leasehold improvements consisted of the following at March 31 (in thousands):

	<u>Estimated Useful Lives</u>	<u>2005</u>	<u>2004</u>
Equipment	3-10 years	\$ 1,828	\$ 2,136
Computer equipment and software	3-5 years	7,791	6,020
Tooling	3-7 years	423	369
Leasehold improvements	Lesser of 11 years or remaining lease term	2,117	2,041
Furniture and fixtures	5-7 years	1,023	1,687
Demo and test equipment	3-7 years	1,948	2,419
Motor vehicles	3 years	18	30
Total		15,148	14,702
Less accumulated depreciation and amortization		(11,819)	(12,117)
Equipment and leasehold improvements, net		<u>\$ 3,329</u>	<u>\$ 2,585</u>

Revenue Recognition: The Company recognizes certain CargoSearch system sales and other product revenue, primarily ParcelSearch systems and after-market parts, in accordance with SEC Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements ("SAB 101"), modified by Emerging Issues Task Force ("EITF") No. 00-21 and SAB No. 104 which requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the fee is fixed and determinable; and (4) collectibility is reasonably assured. In those instances where the Company enters into agreements involving multiple revenue elements, the agreement is divided into separate elements of accounting, the arrangement consideration is allocated to these elements based on fair value, and revenue recognition is considered separately for each individual element. Revenues on cost reimbursable and long-term fixed price contracts are generally recorded as costs are incurred using the percentage of completion method. These contracts are for custom-built systems or contract engineering projects and the length of these contracts typically range from 9 to 24 months from order to delivery and acceptance. Percentages-of-completion are determined by relating the actual costs of work performed to date for each contract to its estimated final costs. Revisions in costs and profit estimates are reflected in the period in which the facts causing the revision become known.

Certain contracts require payments from the customer upon execution of the agreement that are included in customer deposits. Individual customer deposits are reduced by the amount of revenue recognized on the contract until a zero balance is reached. Revenue recognized in excess of billings or customer deposits under the contracts is included in unbilled costs and fees in the accompanying balance sheet. The amounts in unbilled costs and fees at March 31, 2005 are expected to be billed and collected during fiscal 2006.

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

Under the terms of certain 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 \$42,000 in 2005 and \$179,000 in 2004) result from both commercial contract retentions and government contract withholdings generally for up to 15% of fees, as well as the difference between the actual and provisional indirect cost billing rates. Retainages are included in the accompanying consolidated balance sheets as components of unbilled costs and fees.

The Company recognizes sales for its systems that are produced in a standard manufacturing operation and have shorter order to delivery cycles at the time of shipment of the system to the customer and when other revenue recognition criteria are met. The costs of installation at the customer's site are accrued at the time of shipment. Management believes the customer's post-delivery acceptance provisions and installation are perfunctory and inconsequential. The Company has never failed to successfully complete a system installation. Installation is non-complex and does not require specialized skills

and the related costs are predictable and insignificant to the total purchase price. The Company has demonstrated a history of customer acceptance subsequent to shipment and installation of these systems.

Service revenues are recognized on time and materials engagements as the services are provided. Service contract revenues are recognized on a straight-line basis over the length of the contract which reasonably approximates the period service revenues are earned.

The Company records billed shipping and handling fees and billed out-of-pocket expenses as revenue and the associated costs as cost of goods sold in the accompanying consolidated statement of operations.

Included in accounts receivable and unbilled costs and fees at March 31, 2005 and 2004 are \$27,405,000 and \$11,417,000, respectively, attributable to both prime and subcontracts with federal and state governments. The Company establishes a reserve against unbilled costs and fees based on known troubled accounts or contracts, historical experience, and other currently available evidence. Activity in the allowance for unbilled costs and fees is as follows (in thousands):

	<u>Balance at Beginning of Year</u>	<u>Charged to Costs and Expenses</u>	<u>Deductions from Reserves</u>	<u>Balance at At End of Year</u>
2005	\$ 394	\$ 55	\$ 373	\$ 76
2004	\$ 437	\$ —	\$ 43	\$ 394
2003	\$ 437	\$ —	\$ —	\$ 437

Warranty Costs: The Company generally provides a one year parts and labor warranty with the purchase of domestic equipment, and a one year parts only warranty with international equipment. The anticipated cost for this one year warranty is accrued for at the time of the sale based upon historical experience and management's estimates of future liabilities, and is recorded as accrued warranty costs.

Deferred Revenue: The Company offers to its customers extended warranty and service contracts. The coverage period of these contracts will typically range from one to five years, and typically with advance payments that are recorded as deferred revenue. Revenue is recognized on a straight-line basis over the life of the contract, which reasonably approximates the period these revenues are earned. Costs associated with these extended warranty and service contracts are expensed to cost of goods sold as incurred.

Impairment of Long-Lived Assets: Long-lived assets are reviewed for possible impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable in accordance with SFAS No. 144, Accounting for the Impairment and Disposal of Long-Lived Assets.

Impairment is assessed by comparing the estimated undiscounted cash flows over the asset's remaining life to the carrying amount of the asset. If the estimated cash flows are insufficient to recover the investment, an impairment loss is recognized based on the difference between the carrying value of the asset and the fair value of the asset less any costs of disposal.

Accrued Salaries and Benefits: Accrued salaries and benefits at March 31, 2005 and March 31, 2004 include the following (in thousands):

	<u>2005</u>	<u>2004</u>
Accrued payroll and payroll related taxes	\$ 415	\$ 297
Accrued benefits	143	140
Accrued bonus	1,673	675
Accrued vacation	927	842
	<u>\$ 3,158</u>	<u>\$ 1,954</u>

Customer Deposits: For most international orders, the Company generally includes, as part of its terms and conditions, an advance deposit with order acceptance. For long-term international contracts, the Company will generally include milestone payments tied to a specific event and/or passage of time. These deposit amounts are recorded as a liability under Customer Deposits until reduced by revenue recognized against the specific contract.

Deferred Rent: The Company has a lease for its office and manufacturing facilities, which includes escalation clauses. Accounting principles generally accepted in the United States of America require the rental expense to be recorded on a straight-line basis over the life of the lease, resulting in deferred rent being reflected in the accompanying consolidated balance sheets.

Research and Development: Internally funded research and development costs including direct labor, material, subcontractor expenses and related overheads are expensed as incurred. The Company recognized revenues of \$2,534,000, \$444,000, and \$747,000, in fiscal 2005, 2004, and 2003, respectively related to government-sponsored research and development on a cost reimbursement basis.

Fair Value of Financial Instruments: The Company's financial instruments consist primarily of cash and cash equivalents, short-term investments, accounts receivable, unbilled costs and fees, accounts payable and letters of credit. The carrying amounts of these instruments approximate fair value.

Income Per Common and Potential Common Shares: Basic earnings per common share is computed by dividing net income available to common stockholders by the weighted average number of shares of common stock outstanding during the year. Diluted earnings per share include the dilutive impact of options and warrants using the average share price of the Company's common stock for the period. For the years ended March 31, 2005, March 31, 2004 and March 31, 2003, respectively, 42,000, 875,000, and 1,146,000 shares attributable to the exercise of outstanding options and warrants are excluded from diluted earnings per share, as their effect is anti-dilutive.

	<u>Year Ended</u>		
	<u>March 31,</u> <u>2005</u>	<u>March 31,</u> <u>2004</u>	<u>March 31,</u> <u>2003</u>
	(in thousands)		
Weighted average number of common shares outstanding—basic	7,937	7,155	6,627
Assumed exercise of stock options and warrants, using the treasury stock method	<u>628</u>	<u>190</u>	<u>—</u>
Weighted average number of common and potential common shares outstanding—diluted	<u><u>8,565</u></u>	<u><u>7,345</u></u>	<u><u>6,627</u></u>

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 if it is more likely than not that they will not be realized.

Pro Forma Stock-Based Compensation Expense: As permitted by SFAS No. 123, “Accounting for Stock-Based Compensation,” the Company has elected to continue to apply Accounting Principles Board Opinion No. 25, “Accounting for Stock Issued to Employees,” to account for its stock-based compensation plans. Had compensation cost for awards in 2005, 2004 and 2003 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 (loss) and income (loss) per share would have been as follows (in thousands except per share amounts):

	<u>2005</u>	<u>2004</u>	<u>2003</u>
Net income (loss):			
As reported	\$ 11,185	\$ 1,911	\$ (7,951)
Add: Stock based compensation using fair value for all awards	193	212	14
Less: Stock based compensation using fair value method for all awards	<u>(5,623)</u>	<u>(3,676)</u>	<u>(3,703)</u>
Pro forma	<u>\$ 5,755</u>	<u>\$ (1,553)</u>	<u>\$ (11,640)</u>
Income (loss) per share—Basic:			
As reported	\$ 1.41	\$ 0.27	\$ (1.20)
Pro forma	\$ 0.73	\$ (0.22)	\$ (1.76)
Income (loss) per share—Diluted:			
As reported	\$ 1.31	\$ 0.26	\$ (1.20)
Pro forma	\$ 0.67	\$ (0.22)	\$ (1.76)

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 3.7% to 5.0% for fiscal year 2005, 5.0% for fiscal 2004, and 5.0% for fiscal year 2003; an expected volatility of 73%, 72%, and 73%, for 2005, 2004, and 2003, respectively; an expected dividend yield of 0%; and an expected life of 5 years in fiscal 2005 and 7 years for fiscal 2004 and 2003.

New Accounting Pronouncements: In December 2004, the FASB issued SFAS No. 123(R), “Share-Based Payment” (SFAS 123(R)) which establishes accounting standards for all transactions in which an entity exchanges its equity instruments for goods and services. SFAS 123(R) revises SFAS No. 123, “Accounting for Stock-Based Compensation”, supercedes Accounting Principles Board Opinion No. 25, “Accounting for Stock Issued to Employees” and amends Financial Accounting Standard No. 95, “Statement of Cash Flows.” SFAS No. 123(R) generally requires the Company to measure the cost of employee services received in exchange for an award of equity instruments based on the fair value of the award on the date of the grant. The standard requires the fair value on the grant date to be estimated using either an option-pricing model, which is consistent with the terms of the award or a market observed price, if such a price exists. The resulting cost must be recognized over the period during which an employee is required to provide service in exchange for the award, which is usually the vesting period. In April 2005, the SEC deferred the effective date for SFAS 123(R) to the beginning of the first fiscal year that begins after June 15, 2005. The Company expects to adopt SFAS 123(R) on the effective date, and expects the adoption to have a material impact on its results of operations, financial position and cash flows.

In December 2004, the FASB issued SFAS No.151, “Inventory Costs,” which amends part of ARB 43, “Inventory Pricing,” concerning the treatment of certain types of inventory costs. The provisions of ARB No. 43 provided that certain inventory-related costs, such as double freight, re-handling, might be “so abnormal” that they should be charged against current earnings rather than be included in the cost of inventory. As amended by SFAS No. 151, the “so-abnormal” criterion has been eliminated. Thus, all such (abnormal) costs are required to be treated as current-period charges under all circumstances. In addition, fixed production overhead should be allocated based on the normal capacity of the production facilities, with unallocated overhead charged to expense when incurred. SFAS 151 is required to be adopted for fiscal years beginning after June 15, 2005. The Company does not believe its adoption will have a material impact on its results of operations, financial position and cash flows.

In December 2004, the FASB issued a FASB Staff Position (FSP) 109-1 Application of FASB 109 to the Tax Deduction on Qualified Production Activities provided by the American Jobs Creation Act of 2004. The new act provides for a special tax deduction on qualified production activities income that effectively reduces the Company’s tax rate. The FASB has

decided that these amounts should be recorded as a special deduction, and recorded in the year earned. The adoption of this FSP statement will not have an impact on the Company's consolidated financial statements.

2. Lease Agreements

The Company leases certain equipment under operating lease arrangements and facilities under non-cancelable operating leases with various renewal options. For operating leases which contain fixed escalations in rental payments, the Company records the total rent payable on a straight-line basis over the reasonably assured lease term as defined in SFAS 98 "Accounting for Leases." Deferred rent, included in other non-current liabilities in the accompanying balance sheet, represents the difference between rent expense computed on a straight-line basis and actual cash payments for rent. The Company incurred \$1,226,000, \$1,115,000, and \$1,116,000 of rent expense in 2005, 2004, and 2003 respectively. The security deposits on these leases amount to \$63,000 in cash deposits. In conjunction with the Company's lease for its headquarters, the Company has issued security in the form of a standby letter of credit in the amount of \$300,000 with an original expiration date of March 1, 2006 and contains automatic extensions through May 15, 2016.

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

Year Ending March 31,	
2006	\$ 1,214
2007	1,311
2008	1,289
2009	1,289
2010	1,300
Thereafter	8,742
	<u>\$ 15,145</u>

3. Line of Credit

On November 30, 2004, the Company modified its two credit agreements with Silicon Valley Bank East. The modifications extended the credit facilities which expired on November 30, 2004 through November 29, 2006 and reduced the export loan and security facility, guaranteed by the Export-Import Bank of the United States, from \$20.0 million to \$10.0 million. The domestic facility is \$5.0 million domestic loan and security agreement to support the Company's routine working capital needs. Maximum borrowings for this facility are set at the lower of (a) the sum of 80% of eligible domestic accounts receivable plus 10% of finished goods inventory up to \$750,000, or; (b) \$5 million.

The credit facilities bear an interest rate of the greater of 4.0% or the Silicon Valley Bank prime rate (5.75% at March 31, 2005). The credit agreements are collateralized by certain assets of the Company and contain certain restrictions, including limitations on distributions in excess of \$100,000 that can be made to stockholders, and the disposition or encumbrances of assets, and require the maintenance of certain financial covenants. As of March 31, 2005, the Company was in compliance with these covenants.

At March 31, 2005, there were no borrowings outstanding against these credit facilities. The Company had outstanding \$300,000 in stand-by letters of credit against the domestic facility related to its building lease and \$58,000 in stand-by letters of credit against the export facility guaranteeing performance on an international project. No amounts have been drawn against these letters of credit. In addition at March 31, 2005, the Company has a restricted cash balance of \$355,000 related to certain bank required deposits related to outstanding letters of credits, bid bonds, and other bank-related fees.

4. Income Taxes

The provision for (benefit from) income taxes for the years ended March 31, 2005, 2004 and 2003 consisted of the following (in thousands):

	<u>2005</u>	<u>2004</u>	<u>2003</u>
Current:			
Federal	\$ 46	\$ —	\$ (840)
State	6	(123)	(2)
Foreign	<u>30</u>	<u>32</u>	<u>—</u>
	<u>82</u>	<u>(91)</u>	<u>(842)</u>
Deferred			
Federal	—	—	3,066
State	<u>—</u>	<u>—</u>	<u>232</u>
	<u>—</u>	<u>—</u>	<u>3,298</u>
Total	<u>\$ 82</u>	<u>\$ (91)</u>	<u>\$ 2,456</u>

The difference between the total expected provision for (benefit from) income taxes computed by applying the statutory federal income tax rate to income before provision for (benefit from) income taxes and the recorded provision for (benefit from) income taxes for the three years in the period ended March 31, is as follows (in thousands):

	<u>2005</u>	<u>2004</u>	<u>2003</u>
Provision for (benefit from) income taxes at statutory rate	\$ 3,944	\$ 619	\$ (1,868)
State tax (benefit) provision net of federal effect	4	(90)	154
Permanent tax differences for non-deductible expenses/ non-taxable income	1,808	455	(759)
Research tax credits	(25)	(60)	—
Effect of ETI exclusion	(70)	(85)	—
Change in valuation allowance	(5,380)	(940)	4,929
Other	<u>(199)</u>	<u>10</u>	<u>—</u>
	<u>\$ 82</u>	<u>\$ (91)</u>	<u>\$ 2,456</u>

The Company has established a full valuation reserve in accordance with the provisions of SFAS No. 109. During fiscal 2005, the valuation allowance decreased by \$423,000. The amount is comprised of a tax benefit from a valuation allowance release of \$5,380,000 which relates to the use of net operating losses and other deferred tax assets based on the Company's reported book earnings for fiscal 2005. This \$5,380,000 benefit was recorded as a component of the fiscal 2005 income tax provision and is included in the rate reconciliation. In addition, the valuation allowance was also increased in fiscal 2005 by \$4,957,000 related tax deductions available to the Company upon exercise of non-qualified stock option exercises and disqualifying dispositions of incentive stock options by employees. This tax deduction is recorded as a component of equity in accordance with APB No. 25 and SFAS No. 109. The Company continually reviews the adequacy of valuation allowances and releases these allowances when it is determined that it is more likely than not that the benefits will be realized.

The significant components of the net deferred tax assets at March 31, 2005 and 2004 are as follows (in thousands):

	2005		2004	
	Current	Non-current	Current	Non-current
Assets:				
Net operating loss carry forwards	\$ —	\$ 4,206	\$ —	\$ 4,890
Accounts receivable and unbilled costs and fees	289	—	437	—
Inventory	1,419	—	958	—
Deferred revenue	—	215	—	409
Accrued vacation	271	—	328	—
Accrued warranty costs	903	—	272	—
Research & development and other tax credits	—	2,052	—	1,987
Depreciation	—	341	—	664
Other	20	24	177	40
Deferred income tax assets	2,902	6,838	2,172	7,990
Valuation allowance	(2,902)	(6,838)	(2,172)	(7,990)
Net deferred income taxes	\$ —	\$ —	\$ —	\$ —

The Company has available general business and other credits of approximately \$2.0 million expiring at various times through 2025. As of March 31, 2005, the Company had federal and state net pre-tax operating loss carry-forwards of approximately \$10,900,000 and \$6,600,000, respectively expiring at various times from 2007 through 2023.

5. Warranty Obligations

Certain of the Company's parcel and cargo products carry a one-year warranty, the costs of which are accrued for at time of shipment or delivery. Accrual rates are based upon historical experience over the preceding twelve months and management's judgment of future exposure. Warranty experience for the years ended March 31, 2005 and 2004 is as follows (in thousands):

	2005	2004
Warranty accrual at beginning of period	\$ 699	\$ 535
Accruals for warranties issued during the period	2,979	847
Warranty costs incurred during period	(1,356)	(683)
Warranty accrual at end of period	\$ 2,322	\$ 699

6. Stockholders' Equity

Preferred Stock: The Company's articles of organization authorize its Board of Directors to issue up to 100,000 shares of preferred stock in one or more series, to determine and fix certain relative rights and preferences of the shares of any series, to fix the number of shares constituting any such series, and to fix the designation of any such series, without further vote or action by its shareholders. The Company has no present plans to issue shares of preferred stock. In 1998, the Company designated a series of Preferred Stock as Series A Junior Participating Cumulative Preferred Stock (the "Series A Preferred Stock") to be issued upon the exercise of Rights issued under the Company's Shareholder Rights Plan. Under the Shareholder Rights Plan, adopted in 1998, its stockholders are entitled to purchase shares of its Series A Preferred Stock under certain circumstances. These circumstances include the purchase of 15% or more of the outstanding shares of common stock by a person or group, or the announcement of a tender or exchange offer to acquire 15% or more of the outstanding common stock.

Common Stock and Warrant Offering: On May 28, 2002, the Company closed on a private placement offering of common stock and warrants. A total of 1,115,000 shares were sold to accredited investors at a price of \$17.64 each. In addition, warrants to purchase an additional 295,475 shares of common stock at a price of \$23.52 were issued. Proceeds to the Company approximated \$18.4 million, net of approximately \$1.3 million of issuance costs of which \$3.1 million was assigned to the warrants issued. The warrants were immediately vested and have a five-year life expiring in May of 2007. Due to certain conversion features of these warrants that provide that the holder may opt for a cash settlement in certain instances, including a merger, a sale of all or substantially all of the Company's assets, or a tender offer or exchange offer of shares of the Company's stock, a liability equal to the Black-Scholes valuation of the warrants at the deal closing date was recorded on the Company's balance sheet. The "mark to market" change in the warrants valuation of (\$5,101,000), (\$1,273,000) and \$2,299,000 was recorded as other income (expense) for the years ended March 31, 2005, March 31, 2004, and March 31, 2003, respectively. The liability of \$6,137,000 and \$2,093,000 representing the fair market value of outstanding warrants at period end is recorded as a non-current liability at March 31, 2005 and March 31, 2004, respectively. The fair market value of the warrants was determined using the Black-Scholes pricing model with an assumed volatility of 73% and 72% at March 31, 2005 and March 31, 2004, respectively, an interest rate of 3.25% and 5.0% at March 31, 2005 and March 31, 2004, respectively and a life equal to the remaining term of the warrants at each period end.

During the year ended March 31, 2005, warrants to purchase 74,100 shares of common stock were exercised resulting in total proceeds received of \$1,743,000. The fair market value of the warrants at the date of exercise totaled \$1,057,000. The cash proceeds and the fair value of the liability were recorded as additional paid in capital at March 31, 2005.

Stock Option and Other Compensation Plans: The Company has various stock option and other compensation plans for directors, officers, and employees. The Company has the following stock option plans outstanding as of March 31, 2005: the 1995 Combination Plan, the 1996 Plan for Non-Employee Directors, the 1997 Non-Qualified Option Plan, the 1998 Non-Qualified Option Plan, the 1999 Combination Plan, the 2000 Combination Plan, the 2002 Combination Plan, and the 2003 Stock Plan for Non-Employee Directors. There are 3,030,000 shares authorized under these plans. Vesting periods are at the discretion of the Board of Directors and typically range between one and three years. Options under these plans are granted at fair market value and have a term of five or ten years from the date of grant.

The Company has instituted two common stock purchase plans. The Executive Equity Incentive Plan allows an executive officer of the Company to buy original issue Company common stock in any dollar amount up to the gross amount of the annual bonus granted to the officer. For every two shares purchased, the Company will grant one share of restricted stock which vests after 3 years. If the officer leaves the Company prior to 3 years, then the shares revert back to the Company. As of both March 31, 2005 and 2004, 2,251 shares have been reserved and restricted under this plan. The Reload Option Plan allows any eligible employee designated by the Board of Directors to receive new stock options (at an exercise price equal to the fair market value of the common stock on the date of sale of the stock) for every share of Company common stock sold or used to exercise stock options. There have been no issuances of stock options under the Reload Option Plan.

The Company's 2003 Stock Plan for Non-Employee Directors allows for the granting of restricted stock to non-employee directors. The Company granted 7,958 shares of restricted common stock during the year ended March 31, 2005. Stock-based compensation cost is measured on these restricted shares based on the fair value on the grant date, and is recorded as unearned compensation as a separate component of stockholders' equity, and subsequently amortized as compensation expense over the one-year vesting period.

Stock Option Activity

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

	2005		2004		2003	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Options outstanding, beginning of year	1,480,641	\$ 10.66	2,159,860	\$ 10.03	1,739,657	\$ 9.50
Options granted	507,795	31.75	485,685	11.48	704,100	11.13
Options exercised	(826,466)	10.34	(477,619)	7.40	(175,347)	8.39
Options canceled or expired	(96,006)	13.87	(687,285)	11.50	(108,550)	9.14
Options outstanding, end of year	<u>1,065,964</u>	<u>\$ 20.66</u>	<u>1,480,641</u>	<u>\$ 10.66</u>	<u>2,159,860</u>	<u>\$ 10.03</u>
Options exercisable	371,585	\$ 10.74	863,360	\$ 10.11	1,350,246	\$ 9.78
Options available for grant	87,943		586,845		344,615	
Weighted average fair value per share of options granted during the year		\$ 21.68		\$ 7.40		\$ 7.84

The following summarizes certain data for options outstanding and exercisable at March 31, 2005:

	Number of Shares	Range of Exercise Prices	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life
Options outstanding:	87,366	\$ 5.13–\$10.00	\$ 6.89	5.9
	483,853	10.01–15.00	11.64	7.5
	74,320	15.01–25.00	18.02	8.5
	238,150	25.01–30.00	28.50	9.5
	98,875	30.01–40.00	38.98	9.7
	<u>83,400</u>	40.01–47.13	<u>45.70</u>	<u>9.9</u>
	<u>1,065,964</u>		<u>\$ 20.66</u>	<u>8.3</u>
Options exercisable:	79,033	\$ 5.13–\$10.00	\$ 6.70	
	282,752	10.01–15.00	11.63	
	<u>9,800</u>	15.01–25.00	<u>17.75</u>	
	<u>371,585</u>		<u>\$ 10.74</u>	

The Company realizes a tax deduction upon the exercise of non-qualified stock options and disqualifying dispositions of incentive stock options due to the recognition of compensation expense in the calculation of its taxable income. The amount of the compensation recognized for tax purposes is based on the difference between the market value of the common stock and the option price at the date the options are exercised. These tax benefits are credited to additional paid-in capital if it is considered more likely than not that they will be realized. No tax benefits were recorded in fiscal 2005 or 2004.

On April 22, 2005 American Science and Engineering, Inc. announced that its Board of Directors has accelerated the vesting of certain unvested stock options previously awarded to employees. The accelerated options were issued under various equity incentive plans maintained by the Company. The acceleration of outstanding unvested options was immediately effective on a fully-vested basis. Options held by the Chief Executive Officer, the Chief Financial Officer, all other members of management, and any other employees participating in incentive or commission compensation plans were

not included in the acceleration plan. Options held by members of the Board of Directors were also excluded from the vesting acceleration. Options to purchase approximately 193,553 shares of common stock were subject to acceleration. The Company effected this acceleration in order to provide a deserved reward to relevant employees for their significant contributions in connection with the outstanding performance of the Company. The Board of Directors determined that such action was also in the best interests of the shareholders as it believes that such plan will engender loyalty, promote equity ownership, and encourage increased future performance by the subject employee population.

7. Business Segment Information

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

Geographical Data: All of the Company’s export sales originate from the United States. Less than 1% of the Company’s assets are in any foreign country. The following table shows the breakdown of net sales and contract revenues to foreign and domestic customers and the major regions of international activity based upon customer country of domicile (in thousands):

	2005		2004		2003	
Domestic (based on customer location)	\$ 75,376	85%	\$ 66,848	88%	\$ 52,834	85%
Export (based on customer location)	12,938	15%	9,494	12%	9,124	15%
Net Sales and Contract Revenues	<u>\$ 88,314</u>	<u>100%</u>	<u>\$ 76,342</u>	<u>100%</u>	<u>\$ 61,958</u>	<u>100%</u>
Percent of Export Revenue by Major Region:						
Middle East & Africa	15.9%		34.2%		70.6%	
Europe	21.5%		29.1%		16.8%	
Pacific Rim	62.6%		34.4%		11.7%	
All Other	—%		2.3%		0.9%	

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

Fiscal 2005: \$14,639,000, \$11,755,000 and \$11,274,000 respectively, to three customers.

Fiscal 2004: \$14,674,000 and \$11,090,000 respectively, to two customers.

Fiscal 2003: \$10,768,000 to one customer.

Domestically, the Company’s primary client base is comprised of agencies of the U.S. Government. Approximately 75%, 77% and 75% of the Company’s sales in fiscal 2005, 2004 and 2003 respectively, were derived from either (i) contracting directly with the U.S. Government, or (ii) contracting with contractors working directly with the U.S. Government. Certain of the Company’s contracts with the U.S. Government provide the U.S. Government with the standard unilateral right to terminate these contracts for convenience. To date, the Company has not experienced any material losses as a result of this contractual provision.

Three customers at March 31, 2005 had accounts receivable balances representing in excess of 10% of consolidated accounts receivable. Two of these customers, both agencies of the U.S. Government, had receivables totaling \$9,363,000 (33%) and \$2,960,000 (11%) at fiscal year end. The third customer, a subcontractor to the U.S. Government, had a receivable totaling \$5,210,000 (18%) at fiscal year end. One customer at March 31, 2004, an agency of the U.S. Government, had an accounts receivable balance totaling \$2,842,000, representing 19% of the consolidated accounts receivable.

Included in unbilled costs and fees at March 31, 2004 was \$3,387,000 related to a single customer, which was billed and collected during fiscal 2005. There were no individually significant unbilled costs and fees outstanding at March 31, 2005.

8. Sales of Assets

In January 2005, the Company completed an agreement to sell certain assets, comprised of inventory, fixed assets, intellectual property, and certain revenue producing contracts of its High Energy Systems Division to Accuray, Incorporated (“Accuray”). The sales price for these assets totaled \$8,300,000 of which \$5,500,000 was received in cash and \$2,800,000 in the form of a promissory note (presented as note receivable in the consolidated balance sheet), \$2,000,000 of which was secured by a letter of credit. The note receivable bears an interest rate of 7% and matures in January of 2006. The Company recognized a gain on the sale of these assets of \$5,442,000, which is included in income (loss) from operations in the year ended March 31, 2005.

In conjunction with this sale, certain employees of the High Energy Systems Division were employed by Accuray and the Company entered into a license agreement and a supply agreement for linear accelerators with Accuray. In addition, the lease for the California operations of the High Energy Systems Division was assigned to Accuray. The Company remains secondarily liable for the remaining lease payments in the event of default by Accuray during the lease term which expires in February 2011. Total remaining lease payments at March 31, 2005 totaled \$2,078,000. No accrual for this contingent liability has been recorded at March 31, 2005 as payment of this expense is considered remote.

9. Commitments and Contingencies

Deferred Compensation: The Company has an unfunded deferred compensation plan, originally adopted in 1976 and amended at various times, for certain retired directors. This plan provides for periodic payments beginning at age 65, the amount of which depends on the director’s length of service. The Company paid \$18,000 in 2005, \$14,000 in 2004, and \$24,000 in 2003 under this deferred compensation plan. As of March 31, 2005 and 2004, \$93,000 and \$89,000 respectively, is accrued for under this plan.

Litigation: In February 2004, L-3 Communications, Inc. (“L-3”) filed a lawsuit against the Company in the United States District Court for the District of Massachusetts in Boston, seeking declaratory judgments of non-infringement and/or invalidity of two of the Company’s patents—United States Patent No. 6,292,533 and No. 5,903,623. The Company initially filed a motion to dismiss the litigation for lack of subject matter jurisdiction, but was denied. The Company subsequently answered L-3’s underlying complaint, vigorously opposing the plaintiff’s non-infringement and invalidity claims, and recently has been engaging in substantial discovery. In December 2004, the Company also filed a motion for summary judgment with respect to one of the principle claims alleged by the plaintiff.

The Company is also subject to various legal proceedings and claims that arise in the ordinary course of business. At the present time, it is not possible to predict the outcome of these matters, however, the Company currently believes that resolving these matters will not have a material adverse impact on its financial condition, results of operations or cash flows.

Purchase Commitments: In the normal course of business, the Company enters into purchase orders with its vendors for the purchase of materials or services to meet its production needs. At March 31, 2005, the Company had \$7,058,000 of open purchase orders which are expected to be fulfilled within the next twelve to eighteen months. Certain single source vendors or vendors producing custom material require significant lead times from order to delivery of their material. Should the demand for the Company’s products decline significantly, or should there be a significant shift in the mix of products being demanded, the Company may incur cancellation charges related to these commitments, that could be material to the Company’s results of operations. To date, the Company has not experienced any material losses related to cancellation penalties.

Employment Agreements: The Company has employment agreements with certain executives that provide for severance payments of up to one year’s base salary and the continuation of certain benefits for a period not to exceed one year if terminated pursuant to a change in control of the Company.

Retirement Savings Plan: The Company maintains a 401(k) Retirement Savings Plan for all employees with more than 500 hours and 6 months of credited service annually. The Plan is funded by elective employee contributions of up to 15% of their compensation. Under the Plan the Company matches 50% of employee contributions for each participant up to 3% of compensation in the form of Company common stock. Expenses under the Plan, consisting of Company contributions and Plan administrative expenses paid by the Company, totaled \$462,000, \$390,000, and \$421,000, in 2005, 2004 and 2003 respectively.

American Science and Engineering, Inc. and Subsidiary
Unaudited Quarterly Consolidated Financial Data
For the Years Ended March 31, 2005 and March 31, 2004

	2005 by quarter				2004 by quarter			
	1st	2nd	3rd	4th(1)	1st(2)	2nd(2)	3rd	4th(3)
(In thousands, except per share amounts)								
Net sales and contract revenues	\$ 16,812	\$ 21,054	\$ 23,480	\$ 26,968	\$ 17,388	\$ 18,179	\$ 16,266	\$ 24,509
Gross profit	5,138	6,997	8,509	9,844	4,572	4,797	3,964	6,601
Operating income (loss)	409	2,538	3,368	9,601	235	582	(530)	2,464
Net income (loss)	(541)	400	2,023	9,303	120	413	(422)	1,800
Net income (loss) per share								
—Basic	\$ (0.07)	\$ 0.05	\$ 0.25	\$ 1.13	\$ 0.02	\$ 0.06	\$ (0.06)	\$ 0.24
—Diluted	\$ (0.07)	\$ 0.05	\$ 0.23	\$ 1.04	\$ 0.02	\$ 0.06	\$ (0.06)	\$ 0.24

- (1) The fourth quarter of 2005 net income includes \$5.4 million in operating income (loss) related to the gain on the sale of certain assets of Company's High Energy Systems division in January 2005.
- (2) The quarterly 10-Q reports for the first and second quarters of fiscal 2004 were amended during the prior fiscal year.
- (3) The fourth quarter of 2004 net income includes \$.75 million in provisions for inventory obsolescence based on the Company's forecast of future sales and the recoverability analysis.

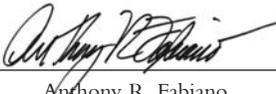
SIGNATURES

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 17, 2005

By:



Anthony R. Fabiano
President and Chief Executive Officer

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:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ANTHONY R. FABIANO</u> Anthony R. Fabiano	Director and President and Chief Executive Officer (Principal Executive Officer)	June 17, 2005
<u>/s/ KENNETH J. GALAZNIK</u> Kenneth J. Galaznik	Chief Financial Officer and Treasurer (Principal Financial Officer)	June 17, 2005
<u>/s/ DENIS R. BROWN</u> Denis R. Brown	Director	June 17, 2005
<u>/s/ ROGER P. HEINISCH</u> Roger P. Heinisch	Director	June 17, 2005
<u>/s/ HAMILTON W. HELMER</u> Hamilton W. Helmer	Director	June 17, 2005
<u>/s/ DONALD J. MCCARREN</u> Donald J. McCarren	Director	June 17, 2005
<u>/s/ ERNEST J. MONIZ</u> Ernest J. Moniz	Director	June 17, 2005
<u>/s/ WILLIAM E. ODOM</u> William E. Odom	Chairman of the Board, Director	June 17, 2005
<u>/s/ CARL W. VOGT</u> Carl W. Vogt	Director	June 17, 2005

EXHIBIT INDEX

Exhibit Number	Description of Exhibit (and Statement of Incorporation by Reference, If Applicable)
(3)(a)	Restated Articles of Organization of the Company (filed as an Exhibit to the Company's Annual Report on Form 10-K for the year ended September 30, 1967, and incorporated herein by reference)
(3)(b)	Articles of Amendment to Restated Articles of Organization of Company (filed as Exhibit 2(a)(ii)(B) to the Company's Registration Statement on Form S-7, No. 2-56452, filed May 25, 1976, and incorporated herein by reference)
(3)(c)	Articles of Amendment to Restated Articles of Organization of Company (filed as Exhibit 12 to the Company's Annual Report on Form 10-K for the year ended March 31, 1976, and incorporated herein by reference)
(3)(d)	By-laws of Company, as amended (filed as Exhibit 2(a)(iii) to the Company's Registration Statement on Form S-7, No. 2-56452, filed May 25, 1976, and incorporated herein by reference)
(3)(e)	Amended and Restated By-laws of American Science & Engineering, Inc. (filed as Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 2003, and incorporated herein by reference)
(4)	Shareholders Rights Plan (filed as Exhibit to the Company's filing on Form dated, 1992 and incorporated herein by reference)
(4)(a)	Shareholder Rights Agreement (filed as Exhibit to the Company's filing on Form 8-A12B dated April 17, 1998 and incorporated herein by reference)
(10)(b)(xii)	1997 Non-Qualified Stock Option Plan (filed as Exhibit 99 to the Company's Registration Statement on Form S-8, File No. 333-27927, filed on May 28, 1997 and incorporated herein by reference)
(10)(b)(xiii)	1998 Non-Qualified Stock Option Plan (filed as Exhibit (10)(b)(xiii) to the Company's Annual Report on Form 10-K for the year ended March 31, 1998, and incorporated herein by reference)
(10)(b)(xv)*	Employment Agreement between the Company and Dr. Joseph Callerame dated May 6, 1998, (filed as Exhibit (10)(b)(xv) to the Company's Annual Report on Form 10-K for the year ended March 31, 1998, and incorporated herein by reference)
(10)(c)(i)	Lease of Billerica property (filed as Exhibit 10(c) to the Company's Annual Report on Form 10-K for the year ended March 31, 1995 and incorporated herein by reference)
(10)(c)(ii)	Amendment to Lease of Billerica property (filed as Exhibit 10(c)(ii) to the Company's Annual Report on Form 10-K for the year ended March 28, 1997 and incorporated herein by reference)
(10)(c)(iii)	Lease of 33 Manning Road, Billerica, MA (filed as Exhibit 10-1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 1999 and incorporated herein by reference)
(10)(c)(iv)	1999 Combination Stock Option Plan (filed as Exhibit 99 to the Company's Registration Statement on Form S-8, File No. 333-91801, filed on November 30, 1999 and incorporated herein by reference)
(10)(c)(v)	2000 Combination Stock Option Plan (filed as Exhibit 99 to the Company's Registration Statement, filed as Exhibit A to the Definitive Proxy Statement on Schedule 14A filed on August 18, 2000 and incorporated herein by reference)
(10)(c)(vi)	2002 Combination Stock Option Plan (filed as Exhibit 99.1 to the Company's Registration Statement on Form S-8, No. 333-102338, filed on January 3, 2003 and incorporated herein by reference)
(10)(c)(xiv)*	Employment Agreement between the Company and Paul Theodore Owens dated December 12, 2002 (filed as Exhibit 10(c)(xiv) to the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 2002 and incorporated herein by reference)
(10)(c)(xv)	Lease of Mountain View, California facility for High Energy Systems Division (filed as Exhibit 10(c)(xv) to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2003, and incorporated herein by reference)
(10)(c)(xvi)*	Employment Offer Letter between the Company and Anthony R. Fabiano dated August 21, 2003 (filed as Exhibit 10(c)(xvi) to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2003, and incorporated herein by reference)
(10)(c)(xvii)	Second Amendment of Lease of 829 Middlesex Turnpike, Billerica, Massachusetts (filed as Exhibit 10(c)(vii) to the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 2004, and incorporated herein by reference)

- (10)(c)(xviii) Amendment of 2002 Combination Stock Option Plan (filed as Exhibit 99.1 to the Company's Registration Statement on Form S-8, No. 333-102338, filed on January 3, 2003 and incorporated herein by reference)
- (10)(c)(xix) 2003 Stock Plan for Non-Employee Directors (filed as Exhibit 4.1 to the Company's Registration Statement on Form S-8, File No. 333-117843, filed on July 30, 2004 and incorporated herein by reference)
- (10)(c)(xx) Amendment to 2003 Stock Plan for Non-Employee Directors
- (10)(d)(xi) Loan and Security Agreement between American Science and Engineering, Inc., and Silicon Valley Bank East dated August 11, 2003 (filed as Exhibit 10(d)(xi) to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2003, and incorporated herein by reference)
- (10)(d)(xii) Export Import Bank Loan and Security Agreement between American Science and Engineering, Inc., and Silicon Valley Bank East dated August 11, 2003 (filed as Exhibit 10(d)(xii) to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2003, and incorporated herein by reference)
- 10(d)(xiii) Asset Purchase Agreement between Accuray Incorporated and American Science and Engineering, Inc. dated December 11, 2004**
- (22.1) Identification of Company's subsidiary, AS&E Global, Inc., incorporated in Massachusetts (filed as Exhibit 22.1 to the Company's Annual Report on Form 10-K for the year ended March 31, 2003, and incorporated herein by reference)
- (23.1) Consent of Independent Registered Public Accounting Firm
- (31.1) Certification of Chief Executive Officer pursuant to Rule 13a-14(a)
- (31.2) Certification of Chief Financial Officer pursuant to Rule 13a-14(a)
- (32.1) Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- (32.2) Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

* Contract with Management

** Issuer agrees to furnish a supplemental copy of the schedules to this agreement to the SEC upon request

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-05797, 333-05795, 333-09257, 333-13259, 333-27927, 333-27929, 333-69717, 333-91801, 333-53842, 333-102338, 333-117843, and 333-117844) and Form S-3 (Nos. 033-61903, 333-09151 and 333-89836) of American Science and Engineering, Inc. of our report dated June 9, 2005 relating to the financial statements and management's assessment of the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Boston, MA
June 17, 2005

Exhibit 31.1

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Section 302 Certification**

I, Anthony R. Fabiano, certify that:

1. I have reviewed this report on Form 10-K of American Science and Engineering, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiary, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonable likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: June 17, 2005

/s/ ANTHONY R. FABIANO

Anthony R. Fabiano
President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER
Section 302 Certification

I, Kenneth J. Galaznik, certify that:

1. I have reviewed this annual report on Form 10-K of American Science and Engineering, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision to ensure that material information relating to the registrant, including its consolidated subsidiary, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: June 17, 2005

/s/ KENNETH J. GALAZNIK

Kenneth J. Galaznik
Chief Financial Officer and Treasurer

Exhibit 32.1

**CERTIFICATION PURSUANT TO
SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 1350, Chapter 63 of Title 18, United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned, the President and Chief Executive Officer of American Science & Engineering, Inc. (the "Company"), does hereby certify that to the undersigned's knowledge:

1. the Company's Annual Report on Form 10-K for the year ended March 31, 2005 ("10-K") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. the information contained in the Company's 10-K being filed fairly presents, in all material respects, the financial condition and results of operation of the Company

Date: June 17, 2005

/s/ ANTHONY R. FABIANO

Anthony R. Fabiano
President and Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to American Science & Engineering, Inc. and will be retained by American Science & Engineering, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

**CERTIFICATION PURSUANT TO
SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 1350, Chapter 63 of Title 18, United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned, the Chief Financial Officer and Treasurer of American Science & Engineering, Inc. (the "Company"), does hereby certify that to the undersigned's knowledge:

1. the Company's Annual Report on Form 10-K for the year ended March 31, 2005 ("10-K") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. the information contained in the Company's 10-K being filed fairly presents, in all material respects, the financial condition and results of operation of the Company

Date: June 17, 2005

/s/ KENNETH J. GALAZNIK

Kenneth J. Galaznik
Chief Financial Officer and Treasurer

A signed original of this written statement required by Section 906 has been provided to American Science & Engineering, Inc. and will be retained by American Science & Engineering, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

NOTES

NOTES

BOARD OF DIRECTORS

Lt. Gen. (Ret.) William E. Odom
Chairman of the Board
*Director, National Security Studies,
Hudson Institute*

Denis R. Brown
Private Investor

Anthony R. Fabiano
*President and Chief Executive Officer,
American Science and Engineering, Inc.*

Roger P. Heinisch, Ph.D.
*Vice President, Engineering (Retired)
Alliant Techsystems*

Hamilton W. Helmer, Ph.D.
President, Helmer & Associates

Donald J. McCarren, Ph.D.
President, D&A Consulting, Inc.

Ernest J. Moniz, Ph.D.
*Professor of Physics,
Massachusetts Institute of Technology*

Carl W. Vogt
Retired Partner, Fulbright and Jaworski

SENIOR MANAGEMENT

Kenneth Breur
Vice President, Operations

Joseph Callerame, Ph.D.
Vice President, Science and Technology

Anthony R. Fabiano
President and Chief Executive Officer

Kenneth Galaznik
Chief Financial Officer and Treasurer

Paul H. Grazewski
Vice President, Product Management

Andrey Mishin, Ph.D.
Vice President, High Energy Systems

George M. Peterman
Vice President, Human Resources

Robert G. Postle
*Vice President, Worldwide Marketing
and Sales*

CONTACT INFORMATION

AS&E Corporate Headquarters
829 Middlesex Turnpike
Billerica, MA 01821
Tel. (978) 262-8700
Fax. (978) 262-8804
<http://www.as-e.com>

Investor Relations: ir@as-e.com
President's Office: ceo@as-e.com
Sales: sales@as-e.com
International Sales: intlsales@as-e.com

ANNUAL MEETING

The Special Meeting in Lieu of Annual Meeting of Stockholders of American Science and Engineering, Inc. will be held September 15, 2005 at 10:30 a.m. at the Renaissance Bedford Hotel, 44 Middlesex Turnpike, Bedford, Massachusetts.

AUDITORS

PricewaterhouseCoopers LLP
Boston, Massachusetts

OUTSIDE LEGAL COUNSEL

Ropes and Gray LLP
Boston, Massachusetts

BANKING

Silicon Valley Bank
Santa Clara, California

TRANSFER AGENT AND REGISTRAR

American Stock Transfer and Trust Company
New York, New York

STOCK LISTING

NASDAQ
Symbol: ASEI

SEC FILINGS

Copies of American Science and Engineering, Inc.'s filings with the Securities and Exchange Commission (SEC) may be obtained online at www.as-e.com in the Investor Information section.

AS&E is an Equal Opportunity Employer. It is our policy to recruit, hire, train and promote personnel in all job classifications without regard to race, religion, color, national origin, sex or age. Above and beyond nondiscrimination, we are committed to an Affirmative Action Program dedicated to hiring, training and advancement within the Company of minorities, women, people with disabilities and Vietnam Era Veterans.

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AS&E is ISO 9001:2000 registered.



WHEN YOU CAN'T AFFORD TO COMPROMISE.

AMERICAN SCIENCE AND ENGINEERING, INC.

829 MIDDLESEX TURNPIKE | BILLERICA, MA 01821 USA | TEL: 978-262-8700 | FAX: 978-262-8804 | www.as-e.com