In 2001 the semiconductor (IC) industry was severely impacted by the effects of too much production capacity, excess inventories, and too little demand for ICs. Terrorist attacks in the United States and regional conflicts elsewhere in the world created unrest and uncertainty in the global economy. For only the second time in 25 years, less ICs were shipped than the year before, as unit sales of ICs fell by 21%. Reports were common in 2001 that as much as 60% of all ICs were being shipped from inventory and that IC manufacturers were operating their facilities at less than 50% of total production capacity.

Total shipments of new IC equipment dropped approximately 60% in our industry segment from the previous year totals. Orders for new equipment diminished as the year progressed. For the year, net new orders amounted to only 64% of 2001 equipment sales as backlogs dropped. In some months, order cancellations for new equipment were higher than new bookings. Equipment suppliers to the front end of the industry were impacted less as they benefited from a continued industry investment in 300-millimeter wafer technology. The back end of the industry was hit harder as new IC technologies did not materialize as fast as expected and equipment sales for mature IC packages all but evaporated. Market conditions worsened as the year progressed and each quarter industry analysts extended their projections for the timing of the bottom of the cycle and its inevitable recovery.

In response to the deteriorating business climate we took a series of decisive actions to cut our losses. We responded with an aggressive plan to cut costs, we consolidated operations, and we refocused our marketing and product development efforts on key customers and shorter-term revenue prospects.

During 2001, we cut our overall operating expenses by more than \$10 million. The largest savings came from reducing our headcount from 225 at the beginning of the year to 100 by year-end. We also implemented a targeted salary reduction plan ranging from 10% to 25% for our salaried employees and shorter work weeks for our production employees. Notwithstanding the deep work force reductions, we believe that we have maintained the correct nucleus to build around during the next upturn. We also closed our San Diego operation and consolidated our manufacturing and corporate operations in Minnesota. The result of our consolidations is a leaner, more focused, and more agile company that is better suited to current and expected business conditions.

Our competitive landscape changed for the better in 2001. Some of our competitors refocused their more limited resources in areas not directly competitive with Aetrium. Our development costs dropped in real dollars but increased as a percentage of expenses as our remaining operations continue to develop new products for the latest IC devices and package types being adopted by the IC industry. As a result, we believe we now offer the broadest range of IC handlers of any of our competitors. We have gained market share by adding new customers, and we believe that we are in a strong competitive position. Our reliability testers continued to be adopted as the product of choice as the IC industry moves from aluminum to copper. We now have various models of our reliability testers successfully installed in a variety of applications at 18 of the top 20 IC manufacturers.

During 2001 we refocused our marketing efforts to adapt to the poor market conditions and our more limited resources. We are now concentrating our efforts on targeted

Joseph C. Levesque Chairman, President and Chief Executive Officer

key accounts in the fastest growing and largest market segments of the IC industry. We also reviewed our distribution channels to determine their compatibility with our new marketing plan. The review led us to a decision to terminate all contracts with our U.S. independent representatives and to rely more heavily on our regional sales managers. This new organization better fits the existing and expected market conditions while at the same time creating substantial cost savings for the company.

The normally cyclical IC industry and its suppliers have experienced business conditions unlike any that we have experienced in the past. But, we have reasons to remain positive about the long-term prospects of both Aetrium and the IC industry. Aetrium is a recognized and respected supplier of critical equipment to an industry that has an average yearly compounded growth rate of 14% over the last 30 years. We believe our current and planned products are well positioned for the recovery of the IC industry.

Most analysts now believe that the industry will begin to return to its historic growth rates as the global economy recovers. They expect the introduction of new products in the computer, networking, and communication areas to fuel increased demands for new IC devices and higher volumes. There is a growing consensus that the IC industry hit the bottom of the down cycle in the fourth quarter of 2001. They now expect that an upturn will become obvious to IC manufacturers in the first half of 2002 and to equipment suppliers in the second half of 2002. The limited insight that is currently being provided to us by our customers tends to reinforce the analysts' projections.

We expect a slow but steady recovery beginning late in the first half of 2002. We now have a cost structure where even modest increases in revenues will positively affect our profitability. 2001 was a year of tremendous challenge and very hard work. However, the commitment and efforts of some very talented employees enabled



us to survive the year in a strong position to move forward. We are pleased to have 2001 behind us. We are still cautious about the current business conditions, but we remain upbeat about the industry and very positive about our own future potential.

Sincerely,

Joseph C. Levesque

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Chairman, President and Chief Executive Officer

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

# FORM 10-K

Commission File No. 0-22166

#### **AETRIUM INCORPORATED**

(Exact name of registrant as specified in its charter)

Minnesota 41-1439182 cor other jurisdiction of (I.R.S. Employer

(State or other jurisdiction of incorporation or organization)

Identification No.)
2350 Helen Street

# North St. Paul, Minnesota 55109

(Address of principal executive offices) (Zip code)

Registrant's telephone number, including area code: (651) 770-2000

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

Securities registered pursuant to Section 12(g) of the Act: Common Stock, \$.001 par value

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

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

As of March 21, 2002, 9,474,566 shares of Common Stock of the Registrant were outstanding, and the aggregate market value of the Common Stock of the Registrant as of that date (based upon the last reported sale price of the Common Stock on that date as reported by the Nasdaq National Market), excluding outstanding shares beneficially owned by directors, executive officers and affiliates of the Registrant, was approximately \$21,523,000.

#### DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K incorporates by reference information (to the extent specific sections are referred to herein) from the Registrant's definitive Proxy Statement for its 2002 Annual Meeting of Stockholders to be held May 21, 2002 (the "2002 Proxy Statement").

# **AETRIUM INCORPORATED**

# Form 10-K

# For the fiscal year ended December 31, 2001

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# **PART I**{ TC "**PART I**" \f C \l "1" }

This Form 10-K contains certain forward-looking statements. For this purpose, any statements contained in this Form 10-K that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, words such as "may," "will," "expect," "believe," "anticipate," "estimate" or "continue" or comparable terminology are intended to identify forward-looking statements. These statements by their nature involve substantial risks and uncertainties, and actual results may differ materially depending on a variety of factors, including those set forth under the heading "Business Risks and Uncertainties" located in "Management's Discussion and Analysis of Financial Condition and Results of Operations" under Item 7 below. References in this Form 10-K to "Aetrium," "the company," "we" and "our," unless the context otherwise requires, refer to Aetrium Incorporated and its consolidated subsidiaries and their respective predecessors.

#### ITEM 1. BUSINESS. TC "ITEM 1. BUSINESS." \f C \land 1"2" \}

#### Overview

We design, manufacture and market a variety of electromechanical equipment used in the handling and testing of semiconductor devices, such as integrated circuits, or ICs, and discrete electronic components. Our primary focus is on high volume semiconductor device types and on the latest IC package designs. Our products are purchased primarily by semiconductor manufacturers and their assembly and test subcontractors. Our products are used in the test, assembly and packaging, or TAP, segment of semiconductor manufacturing. Our products automate critical functions to improve manufacturing yield, raise quality levels, increase product reliability and reduce manufacturing costs.

We have three principal product lines:

- Test Handler Products. In terms of revenue, this is our largest product line. Our broad line of test handler products incorporates thermal conditioning, contactor and automated handling technologies to provide automated handling of ICs and discrete electronic components during production test cycles. We also offer change kits to adapt our test handlers to different IC package configurations or to upgrade installed equipment for enhanced performance, which represent a significant part of our revenue.
- IC Automation Products. Some of our IC automation products are sold to original equipment manufacturers, or OEMs, to be incorporated as the automated handling components of such OEMs' own proprietary equipment for a variety of other IC processing requirements, such as marking, lead scanning, and lead trim and form. The rest of our IC automation products are sold to semiconductor manufacturers, and are used to automate the loading and unloading of burn-in boards.
- Reliability Test Equipment. The primary focus of our reliability test products is to provide IC manufacturers with IC performance data to aid in the evaluation and improvement of IC designs and manufacturing processes to increase IC yield and reliability.

2001 was a year of tremendous challenge for us, as the semiconductor industry suffered its worst downturn in 25 years. This downturn resulted in a 60% decrease in TAP semiconductor equipment sales from the previous year. We addressed this challenge through several restructuring and reorganizing actions that saved us over \$10 million in operating expenses over the previous year, reduced our workforce from 225 to 102 employees, and maintained our working capital at levels that should support

us during the remainder of this downturn. At the same time, we continued our product development efforts focused on the newest and fastest growing IC package types and the latest semiconductor processes. We believe that our cost structure and product offerings position us to take full advantage of the next industry upturn when it begins.

As a result of the restructuring activities completed in fiscal year 2000 and early fiscal year 2001, we now have two operating locations where all product development and manufacturing activities are conducted, North St. Paul, Minnesota and Dallas, Texas. We manufacture products within each of our principal product lines at both of these facilities.

## Background

Our strategy has focused on revenue growth through product line expansion, by both internally developing and acquiring complementary technologies, businesses, or product lines.

In 1998, we acquired the equipment business of WEB Technology, Inc., based in Dallas, Texas. The primary products we acquired were IC automation products used to automate the loading and unloading of burn-in boards. This equipment can be configured to accommodate any burn-in board currently being manufactured. We manufacture this equipment at our Dallas operations.

In 1997, we completed two acquisitions that expanded our test handler product lines. In November 1997, we acquired a product line of pick-and-place test handlers from Advantek Inc. This acquisition extended our product line of pick-and-place test handlers for non-memory analog and logic IC devices. We manufacture the product line acquired from Advantek at our North St. Paul operations.

In April 1997, we acquired a line of turret test handler products through our purchase of the assets of Forward Systems Automation, Inc. This line of test handlers addresses discrete components and small ICs, including the fastest growing and newest IC package types. We manufacture this product line at our Dallas operations.

In December 1995, we acquired the assets of E.J. Systems, Inc. Through this acquisition, we obtained some early stage conductive thermal core technology that we have further developed and transferred to our North St. Paul operations.

In November 1994, we acquired the assets of Sym-Tek Systems, Inc., which expanded our presence in the memory IC market, and also extended our line of gravity feed test handlers for non-memory IC test handler applications. We have since discontinued the products for non-memory applications. In the fourth quarter of fiscal year 2000, we also decided to exit the highly volatile handler market for memory applications. However, through this acquisition we obtained core pick-and-place and in-tray handling technologies, which we further developed and transferred to our North St. Paul operations.

In December 1993, we originated our reliability test systems product line through the purchase of the assets of Sienna Technologies, Inc. Since the acquisition, we have developed and introduced a new generation product line that has been well received by a growing customer base. Our reliability test products are primarily manufactured at our North St. Paul operations.

In April 1988, we acquired the core products of our 5050 series of gravity feed test handlers through our acquisition of Electro-Mechanical Systems, Inc. Since then, we have expanded this series of products through internal development to include a full range of thermal conditioning capabilities, contactors and change kits for a wide range of IC package types. We sell these products into the largest

market segment of the semiconductor industry. We manufacture our gravity feed test handlers at our North St. Paul operations.

We were incorporated in Minnesota in December 1982. Our executive offices are located at 2350 Helen Street, North St. Paul, Minnesota 55109, our telephone number is (651) 770-2000. Our web site address is *www.aetrium.com*. Our website is not intended to be a part of this Annual Report on Form 10-K.

#### **Financial Information About Segments**

Since our inception, we have operated in the single industry segment of supplying electromechanical equipment to the semiconductor industry.

#### **Test Handler Products**

Test handlers are electromechanical systems interfaced with a tester to form a test system designed to handle, thermally condition, contact and sort ICs and discrete electronic components automatically during the final test stage of the manufacturing process. The devices are loaded into the handler from bowls, tubes or trays and then typically transported to a temperature chamber within the test handler where they are thermally conditioned and controlled to the required testing temperature. The devices are then positioned against the test handler contactor, which provides an electrical connection between the device and the tester. After testing, the test handler sorts the devices according to test performance as instructed by the tester. In some cases, additional process steps are completed by the test handler system. These include marking or inspection of the IC packages, and automatic placement of the ICs into a tube, tray or tape for shipment to the end user. Test handlers must meet industry criteria for thermal conditioning, contactor integrity and minimization of damage to the semiconductor package during the test handling cycle.

ICs are multi-function semiconductor devices that can be made up of up to millions of individual transistor gates, and include microprocessors, microcontrollers, digital signal processors and memory devices. ICs come in a wide range of sizes and package types, depending upon their application. Discrete electronic components are single function semiconductor devices, such as resistors and capacitors. They are typically very small and are packaged in several package types.

In the testing of semiconductor devices, the semiconductor package type being tested often dictates the type of test handler used. Small outline packages, or SOPs, constituting the largest IC package segment, have leads, or electrical contacts, extending from two sides and are typically tested with gravity feed test handlers. Micro leadless packages, or MLPs and sometimes referred to as MLF™s, SONs or QFNs, have electrical contact pads flush with the sides and bottoms of the ICs and are typically tested with gravity feed or turret based test handlers. MLPs constitute one of the fastest growing new IC package types. More complex ICs are sometimes packaged in the IC package families most easily damaged in handling, such as QFPs, BGAs, PGAs, some CSPs and the most fragile SOP packages. QFPs, or quad flat packs, have leads extending from all four sides. BGAs, or ball grid array packages, have bumped leads on the bottom of the package. PGAs, or pin grid arrays, have pin type leads extending from the bottom of the package. CSPs, or chip scale packages, are a category of some of the smallest IC packages, with package sizes being no more than 1.2 times the size of the IC die within. More fragile IC package types are typically tested with pick-and-place test handlers. Discrete electronic component package types include small outline transistor packages, or SOPs, which are also sometimes used for the smallest ICs. Discrete electronic component package types are typically tested with turret based test handlers.

Our primary focus continues to be on the newer generation of surface mount devices that represent the largest volumes, the newest IC device types, and the fastest growing markets in the industry. We believe we offer the broadest line of test handling products to the semiconductor industry, addressing the full spectrum of non-memory device types, IC package types and media transport types. Our test handler products are complementary with minimal overlap of application, and we distribute and service them through a common organization for efficiency.

## **Gravity Feed Test Handlers**

Traditionally, test handlers have used gravity to move ICs and other semiconductor devices from tubes through the handler system and back into tubes. Typically, in gravity feed systems ICs are halted at necessary points in the handling process by colliding against other ICs or other stopping mechanisms, which can result in lead damage to more fragile IC packages. Accordingly, gravity handlers are best suited for more rugged IC packages, which include MLPs and most SOPs.

Our gravity feed test handlers compete most favorably in high-volume applications and their high throughput rates are an added advantage in relatively short test time applications. These handlers adapt to "plunge to board"-type contacting and third party contactors, as well as our internally developed proprietary contactors, providing cost-effective solutions to a wide range of customer test requirements. In "plunge to board"-type contacting, the IC is placed directly against the test head with no intermediary sockets or connections, which is particularly well suited for high performance ICs. Our gravity feed test handlers can heat or cool the ICs being tested to any test temperature from -55 degrees C to +155 degrees C. They use mechanical refrigeration to cool ICs, which is more economical than liquid nitrogen, commonly used as a refrigerant in competing handlers. Our principal gravity feed test handlers include:

- 5500 Series. Our newly developed 5500 Series of single and dual site gravity feed test handlers for analog and logic IC applications addresses a wide range of IC packages including SOPs and MLPs.
- 5050 Series. Our 5050 Series of gravity feed test handlers for analog and logic IC applications addresses a wide range of SOP package types. In addition to single test site capability, we offer dual test site and quad test site capability within our 5050 Series of handlers to increase productivity and reduce testing costs in certain applications.

#### **Turret Based Test Handlers**

Turret based handlers have a series of pickup heads that rotate around a fixed axis and move devices from station to station. They are typically configured for bowl feed input and tape and reel output, although they can be configured for tube or tray input and tube or tray output. One or more stations on turret based handlers are used for testing ICs. Stations on turret based handlers can also be used for additional process steps such as marking and inspection. Turret based handlers are well suited for discrete components and smaller ICs that are difficult to handle in gravity handlers because of their size and small mass, and are well suited for MLPs because they can be handled in bulk. Turret based handlers are typically more costly than gravity feed handlers, but can have throughput rates that rival multi-site gravity handlers.

Our turret based test handlers are designed for high volume testing of discrete electronic component packages and ICs in MLP, CSP and SOT packages. These test handlers can integrate several functions, including test, laser marking, mark inspection, lead inspection, and tape and reel output. They can be configured for a variety of options for contacting, including "plunge to board"-type contacting.

These test handlers are typically configured for bowl feed input and tape and reel output. Our principal turret based handlers include:

- *Model 5800 Series*. We introduced the Model 5800 Small Component Integrated Test Handler in 2000. It has eight stations, and can be configured for up to four test sites. It operates at temperatures ranging from ambient to +150 degrees C, and can be configured for tube input and tube output. The Model 5800 can achieve throughputs of up to 16,000 devices per hour.
- *Model 8832 Series*. We introduced the Model 8832 Small Component Integrated Test Handler in 2000. It has 32 stations, which provide a high degree of flexibility in integrating IC process functions into the handler. It can be configured for up to eight test sites and, optionally, for tube or tray input and tube or tray output. The Model 8832 is capable of throughputs of up to 24,000 devices per hour.
- *Model 8816 Series*. We expect to introduce the Model 8816 Small Component Integrated Test Handler in 2002. It is based on the Model 8832, has sixteen stations, and provides for a "hard dock" tester interface, where the test head is docked directly against the test handler to minimize the distance between the test head electronics and the IC under test.

#### Pick-and-Place Test Handlers

Pick-and-place test handlers move ICs by "picking" up each device and "placing" the device to the appropriate position, similar to a robot. The motions avoid jarring stops and potential resulting lead damage. Thus, they can handle a wide variety of packages, including the IC package families most easily damaged in handling.

Our pick-and-place test handlers can be configured for a wide variety of analog and logic ICs in SOP, QFP, BGA, CSP and PGA packages. Using a conventional thermal chamber technique, these handlers can heat or cool the ICs being tested to any test temperature from -55 degrees C to +155 degrees C. These handlers feature the Soft-Touch Probe<sup>TM</sup> to safely and reliably handle the most fragile IC packages. Devices are transported with their leads up, virtually eliminating the possibility of lead damage. These handlers feature "plunge to board"-type contacting, and can be modified with change kits, typically within 15 minutes, to accommodate nearly every IC package configuration being manufactured in volume today. Our principal pick-and-place handlers include:

- *Model 1400*. The Model 1400 is a single site pick-and-place test handler.
- *Model 3000*. The Model 3000 test handler is a dual site pick-and-place test handler, which allows for significantly increased throughput for dual site applications, as compared to single site test handlers.

#### Change Kits, Upgrades and Spare Parts

We have an ongoing demand for IC package change kits for our installed test handler products, including test handlers no longer included in our active product lines. We sell a variety of change kits to accommodate the growing variety of IC packages used in the IC industry. The demand for change kits is driven by the introduction of new IC package types and increased production volumes experienced by our end customers. Also included in change kits are upgrade kits to enhance the performance of installed equipment. We sell spare parts with new orders as kits or separately as piece parts or in kit form as required.

#### **IC Automation Products**

We believe that the growing number and volume of fine pitch SOPs and other delicate device packages such as QFPs, BGAs and CSPs is driving a demand for automated equipment for all IC final manufacturing processes. Existing processing equipment often will not accommodate these package types or the numerous tray configurations used to transport the ICs. We believe that our automation product lines offer the most effective handling technology to automate these manufacturing processes for increasingly difficult to handle newer generation ICs.

#### 4800 Series

Our 4800 Series is a line of products used to automate the loading and unloading of burn-in boards. Burn-in boards vary in size and density, and are used to place individual ICs into a convection oven for an extensive reliability screening and stress testing procedure known as "burn-in." Our burn-in board automation products take untested ICs out of trays or other media and place them into sockets on a burn-in board. After the burn-in test is complete, the model 4800 system unloads and removes ICs that have completed the burn-in cycle from the burn-in board sockets and sorts the ICs according to the results of the test as instructed by the burn-in system. The burn-in process screens for early failures by operating the IC at elevated voltages and temperatures, usually at 125 degrees C, for periods typically ranging from 12 to 96 hours. Burn-in systems can process thousands of ICs simultaneously, utilizing multiple boards. Most leading-edge microprocessors, digital signal processors, and memory ICs undergo burn-in testing.

Our 4800 Series comes in single pick-up head, dual-head, five-head and ten-head versions. The single and dual head models are best suited for large IC packages or for those applications requiring a quick conversion of the model 4800 system to handle a different IC package. The five-head and ten-head systems are best suited to very high volume memory applications. All are available with a variety of input and output options, including tubes and trays. Package positioning stations ensure device alignment into sockets and output media. An optional stacked burn-in board elevator and trolley allows the system to process up to 32 burn-in boards without any operator intervention.

#### IC Automation Product Line for OEMs

We began the development of our current IC Automation product line in 1990. This product line is marketed to other semiconductor equipment manufacturers to provide automation for their semiconductor process equipment. Our IC Automation modules have been incorporated to provide automation in trim and form, marking, mark curing, lead inspection, mark inspection, lead conditioning, media transfer and prom programming equipment to accommodate various device characteristics and media packaging. Our IC Automation modules currently consist of a series of robotic electromechanical handling modules, each designed to perform a specific handling function. Together these modules perform nearly all of the handling functions necessary for the various IC manufacturing processes. Each handling module has a microprocessor that directs the handling module's function and communicates with other modules through a proprietary software protocol that enables the transfer of ICs between modules in a logical and efficient manner.

The IC Automation handling modules can be readily assembled into systems configured to provide nearly any IC routing pattern required by an IC processing application, and can be readily integrated as a component of the processing equipment. This generic nature of the IC Automation handling modules allows us to provide a versatile, cost effective automation solution to IC processing equipment OEMs that overcomes the handling automation challenges presented by more fragile IC package types. The IC Automation modules can also be adapted to provide an automated linkage

between IC manufacturing processes, thus offering the potential for seamless automated handling of ICs from trim and form to packaging for shipment.

Our revenues from our IC Automation product line were severely impacted by the record industry downturn in 2001 as our OEM customers experienced the same business conditions that we were experiencing. Because of the excess capacity that continues to exist for our OEM customers' products, we expect that future revenues from this product line will be increasingly dependent on our success in having our IC Automation modules incorporated into new OEM customer product introductions.

#### **Reliability Test Equipment**

The IC industry's demand for higher performance devices through smaller circuit geometries has led to significant technological changes in the materials and processes used to manufacture ICs, including an emerging shift to copper materials for the increasingly minute circuitry of devices. These changes in technology, along with IC user demand for increased reliability, have created a need for increasingly sophisticated reliability testing of IC designs and manufacturing processes. Our reliability test equipment product line enables IC manufacturers to force precise levels of voltage and current through ICs, collect and analyze relevant data, and predict lifetime performance of ICs. This equipment can be utilized to perform reliability testing of packaged and unpackaged ICs. We have reliability test equipment installed at 18 of the top 20 semiconductor manufacturers in the world.

In 1998, we formally introduced our Model 1164 series, including a suite of applications for customers to perform a variety of tests. The Model 1164 series is a fundamentally improved architecture from our previous reliability test products. The Model 1164 series features a modular design that allows for great flexibility in performing reliability tests, and can test up to 4,096 devices at a time and perform numerous simultaneous tests on batches of ICs. The Model 1164 series includes the full reliability test functionality necessary for testing an IC manufacturer's entire copper process. Our copper system has been shipping in volume since the fourth quarter of fiscal year 1999.

#### Competition

The semiconductor capital equipment market is highly competitive. In the market for test handler products, we compete with a number of companies ranging from very small businesses to large companies, some of which have substantially greater financial, manufacturing, marketing and product development resources than we have. Some of these companies manufacture and sell both testers and test handlers. The particular companies with which we compete vary with our different markets, with no one company dominating the overall test handler market. The companies with which we compete most directly in the surface mount IC test handler market include Cohu, Inc., Multitest Electronic Systems GmbH, and Micro Component Technology, Inc. We also compete with Ismeca S.A. and Tesec Corporation in the market for turret based test handlers configured to handle discrete electronic components.

We compete for test handler sales primarily on the basis of effective handler throughput, cost of ownership, temperature accuracy, contactor integrity and other performance characteristics of our products, the breadth of our product lines, the effectiveness of our sales and distribution channels and our customer relationships. We believe we compete favorably on all of these factors.

The market for burn-in board automation products is highly competitive. We compete with a number of companies ranging from very small businesses to large companies, some of which have substantially greater financial, manufacturing, marketing and product development resources than we

have. The companies with which we compete most directly in this market include Cohu, Inc., SIPA, S.p.a., and Todo Seisakusho, Ltd.

We compete for burn-in board automation product sales primarily on the basis of effective throughput, cost of ownership, versatility, and other performance characteristics of our products, the breadth of our product line, the effectiveness of our sales and distribution channels and our customer service. We believe we compete favorably on all of these factors.

We believe that the market for our IC Automation products sold on an OEM basis has no clearly defined commercial competitors offering similar automated handling modules to the IC industry. Historically, OEMs supplying equipment for IC manufacturing processes have developed custom or semicustom handling components. Many of these OEMs have internal development capability for automated handling and many engineering companies also have automated handling development capability.

The market for our reliability test equipment is also highly competitive and our competitors include QualiTau, Ltd. and Micro Instrument Company. We compete for reliability test system sales on the basis of technology, price, delivery, system flexibility and overall system performance. We believe we compete favorably on all of these factors.

#### **Manufacturing and Supplies**

We manufacture test handlers, reliability test equipment and our IC Automation product line at our North St. Paul, Minnesota facility. We currently manufacture our turret based test handler products, some of our reliability test equipment and our IC automation products used for burn-in board applications at our Dallas, Texas facility. Our manufacturing operations consist of procurement and inspection of components and subassemblies, assembly and extensive test of finished products. Quality and reliability are emphasized in both the design and manufacture of our products.

We or our suppliers inspect all components and subassemblies for mechanical and electrical compliance to our specifications. We test all finished products against company and customer specifications, and fully assembled test handler products are tested at all temperatures for which they are designed and with all the IC packages to be accommodated.

A significant portion of the components and subassemblies used in our products, including machined parts, PC boards, refrigeration systems, vacuum pumps and contactor elements, are manufactured by third parties on a subcontract basis. As a part of our total quality management program, we have an ongoing supplier quality program under which we select, monitor and rate our suppliers, and recognize suppliers for outstanding performance.

Certain components used in our products, including certain contactor components, printed circuit boards and refrigeration systems, are currently available from only a limited number of sources. We do not maintain long term supply agreements with most of our suppliers, and we purchase most of our components through individual purchase orders. We may not always be able to replace all of our suppliers within a time period consistent with our business requirements. We attempt to keep an adequate supply of critical components in our inventory to minimize any significant impact the loss of a supplier may cause.

#### **Customers**

We rely on a limited number of customers for a substantial percentage of our net sales. In fiscal year 2001, our top three customers accounted for 35% of our net sales, with Maxim Integrated Products,

Inc. accounting for over 10% of net sales. In fiscal year 2000, our top three customers accounted for 32% of our net sales, with UST Technology Pte, Ltd. and Maxim Integrated Products, Inc. each accounting for over 10% of net sales. In fiscal year 1999, our top three customers accounted for approximately 30% of our net sales, with UST Technology Pte, Ltd. and IBM Corporation each accounting for over 10% of net sales. The loss of or a significant reduction in orders by these or other significant customers, including reductions due to market, economic or competitive conditions in the semiconductor industry, could have a negative impact on our financial condition and results of operations.

#### **Sales and Marketing**

We market our products through a combination of direct salespeople and international distributors. Our direct sales organization, comprised of 12 salespeople, is responsible for all domestic sales, and coordinates the activities of our international distributors and actively participates with them in international selling efforts. This enables us to establish strong direct ties with our customers. In December 2001, we terminated our agreements with U.S. independent sales representatives, whom our internal sales force had used prior to that time to assist on domestic sales.

We maintain sales and service locations in North St. Paul, Minnesota, Santa Clara, California, Landisville, Pennsylvania, Dallas, Texas, and Saugus, Massachusetts. As of December 31, 2001, we had international distributors located in the United Kingdom, France, Germany, Japan, Taiwan, Thailand, Malaysia, Korea, Singapore, Hong Kong, China and the Philippines.

Our marketing efforts include participation in industry trade shows and production of product literature and sales support tools. These efforts are designed to generate sales leads for our international distributors and direct salespeople.

International shipments accounted for 41%, 32% and 37% of our net sales in 1999, 2000, and 2001, respectively. In addition, it is not uncommon for U.S. customers to take delivery of products in the United States for immediate shipment to international sites, particularly the IC Automation product line that is sold on an OEM basis. Most of our international shipments are made to international sites of U.S. semiconductor manufacturers, although there is a growing foreign customer base included in our international sales.

We invoice all of our international sales in U.S. dollars and, accordingly, have not historically been subject to fluctuating currency exchange rates. We establish credit limits from time to time on our international distributors, who purchase products from us and resell to end-users. We also often require irrevocable letters of credit from our end-user international customers to minimize credit risk and to simplify the purchasing/payment cycle.

# **Research and Development**

We believe we must continue to enhance, broaden and modify our existing product lines to meet the constantly evolving needs of the semiconductor equipment market. To date, we have relied both on internal development and acquisitions of technology and product lines to extend our product lines, increase our customer base and avoid reliance on any single semiconductor equipment market segment. Due to the record industry downturn we experienced in 2001 and the resulting decline in our revenues, we significantly reduced our levels of research and development spending in 2001 and focused our available resources on product development with near term revenue potential. We concentrated our new product development efforts on:

• development of the Model 8816 hard dock turret based handler;

- development of new tube and tray input and output modules for the Model 8832 turret based handler:
- development of new contacting mechanisms with significantly improved throughput rates for the Model 5500 gravity feed handler; and
- development of additional test capabilities for our Model 1164 reliability test equipment for the latest generations of copper, insulator and transistor device technologies.

Due to budgetary constraints, a lack of clearly defined market requirements, and limited near term revenue potential, in 2001 we suspended our development work on our DTX pick-and-place test handler platform for our proprietary conductive thermal technology.

Product development expenses typically divide approximately 50% for new product development and 50% for continuation engineering. Our continuation engineering efforts include the development of additional change kits to meet the expanding families of IC package types, further advancement of contactor technologies, and increasing features and performance options for existing equipment.

We expense all research and development costs, including costs for software development, as incurred. In 1999, 2000, and 2001, our expenses relating to research and development were approximately \$9.8 million, \$8.5 million and \$4.7 million, respectively. Over time, our objective is to invest approximately 13% to 15% of our net sales in research and development, although the percentage may be higher in periods of reduced sales, such as 2001 where our research and development spending increased as a percentage of net sales to 23.5%. We employed 26 engineering personnel as of December 31, 2001.

#### **Intellectual Property Rights**

We attempt to protect the proprietary aspects of our products with patents, copyrights, trade secret law and internal nondisclosure safeguards. We currently hold several U.S. patents covering certain features of our handling systems and IC Automation modules, the contactor elements incorporated in certain of our test handlers, and elements of our proprietary conductive thermal technology. The source code for the software contained in our products is considered proprietary and is not furnished to customers. We have also entered into confidentiality agreements with each of our key employees. Despite these restrictions, it may be possible for competitors or users to copy aspects of our products or to obtain information that we regard as a trade secret.

There is a rapid pace of technological change in the semiconductor industry. We believe that patent, trade secret and copyright protection are less significant to our competitive position than factors such as the knowledge, ability and experience of our personnel, new product development, frequent product enhancements, name recognition and ongoing, reliable product maintenance and support.

#### Backlog

Our backlog was \$5.4 million at the end of fiscal 2001 and \$18.7 million at the end of fiscal 2000. Because purchase orders are generally subject to cancellation or delay by customers with limited or no penalty, our backlog is not necessarily indicative of future revenue or earnings.

## **Employees**

As of December 31, 2001, we had 102 employees, including 34 in manufacturing, 26 in engineering and product development, 23 in sales, marketing and customer service, and 19 in general administration and finance. None of our employees is represented by a labor union or is subject to any collective bargaining agreement. We have never experienced a work stoppage and believe that our employee relations are satisfactory.

#### **Financial Information About Geographic Areas**

See Note 15 to the Consolidated Financial Statements included in this Annual Report on Form 10-K for information about geographic areas.

## **Certain Important Factors**

In addition to the factors identified above, there are several important factors that could cause our actual results to differ materially from those we anticipate as reflected in any forward-looking statements. Please refer to the heading "Business Risks and Uncertainties" located in "Management's Discussion and Analysis of Financial Condition and Results of Operations" under Item 7 of this Annual Report on Form 10-K for a discussion of these factors and their potential impact on the success of our operations and our ability to achieve our goals.

## **ITEM 2. PROPERTIES.** { TC "**ITEM 2. PROPERTIES.**" \f C \lambda "2" }

We conduct our corporate functions and manufacturing, product development, sales, marketing and field service operations in North St. Paul, Minnesota. We currently occupy approximately 45,000 square feet in North St. Paul under a lease that expires in March 2006, with an annual rent of approximately \$240,000. We have an option under the lease, exercisable at any time during the initial lease term, to require construction of an additional approximately 45,000 square feet for lease at the same rental rate.

We also conduct manufacturing, product development, and certain sales and marketing activities in approximately 29,400 square feet in Dallas, Texas, under a lease that expires in April 2003. The annual rent is approximately \$203,000.

We also occupy approximately 3,000 square feet of space in Santa Clara, California under a lease that expires in May 2003, with an annual rent of approximately \$67,200. We use this space for sales and field service operations.

We also have the following continuing lease obligations for facilities we have vacated:

- We vacated a 30,000 square foot facility which is adjacent to our North St. Paul facility in June 2001 when we consolidated our North St. Paul operations into a single building. This facility is under a lease that expires in March 2006, with an annual rent of approximately \$198,000. Approximately half of this space is currently subleased to third parties, and we are actively seeking to sublease the remainder.
- We vacated a 10,000 square foot facility located in Poway, California in March 2001 when we completed the consolidation of our Poway, California operation into our North St. Paul operation. This facility is under a lease that expires in September 2003, with an annual rent of

approximately \$113,000. In April 2001, we subleased this facility to a third party for the remainder of the lease term, but we remain liable under the lease on a contingent basis.

- We vacated a 45,000 square foot facility in Poway, California in 2000 when we relocated to the 10,000 square foot Poway, California facility. This lease was assigned to a third party and we are contingently liable for the lease if the assignee defaults. This lease expires in January 2010, and has an annual rent of approximately \$429,000.
- We vacated a 26,600 square foot facility in Grand Prairie, Texas in 2000 when we consolidated our Grand Prairie operation into our Dallas, Texas operation. This facility is under a lease that expires in June 2003 with an annual rent of \$146,000. This property continues to be vacant. We expect to continue to work with the owner to locate a sub-tenant for the property.

## ITEM 3. LEGAL PROCEEDINGS. TC "ITEM 3. LEGAL PROCEEDINGS." \f C \l "2" \}

We are not a party to, and none of our property is the subject of, any material pending legal, governmental, administrative or other proceedings.

# ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS. { TC "ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS." \f C \land 1" 2" }

We did not submit any matter to a vote of our security holders during the fourth quarter of fiscal year 2001.

# ITEM 4A. EXECUTIVE OFFICERS OF THE REGISTRANT.{ TC "ITEM 4A. EXECUTIVE OFFICERS OF THE REGISTRANT." \f C \langle "2" }

Our executive officers, their ages and the offices they held as of March 5, 2002 are as follows:

<u>Name</u>	<u>Age</u>	<b>Position</b>
Joseph C. Levesque	57	Chairman of the Board, President and Chief Executive Officer
Douglas L. Hemer	55	Chief Administrative Officer, Secretary and Director
Daniel M. Koch	48	Vice President — Worldwide Sales
John J. Pollock	42	Vice President — General Manager, North St. Paul Operations
Keith E. Williams	58	President — Dallas Operations
Paul H. Askegaard	50	Treasurer

*Mr. Levesque* has served as our President, Chief Executive Officer and Chairman of our board since 1986. From 1973 to 1986, Mr. Levesque served in various capacities and most recently as Executive Vice President of Micro Component Technology, Inc., a manufacturer of IC testers and test handlers.

- *Mr. Hemer* has served as one of our directors since 1986, and has served as our Secretary since May 2000 and as our Chief Administrative Officer since March 2001. He served as our Group Vice President from August 1998 to March 2001, as the President of our Poway, California operations from February 1997 to August 1998 and as our Chief Administrative Officer from May 1996 until February 1997. Mr. Hemer was a partner in the law firm of Oppenheimer Wolff & Donnelly LLP for more than 15 years before joining Aetrium. Mr. Hemer is also a director of Versa Companies, a privately held company, and serves on its compensation committee.
- *Mr. Koch* has served as our Vice President Worldwide Sales since March 1991. From March 1990 to March 1991, Mr. Koch served as the Vice President of Sales of Summation, Inc., a company involved with the testing of IC boards. From December 1973 to March 1990, Mr. Koch served in various sales positions and most recently as Vice President of Sales of Micro Component Technology, Inc.
- *Mr. Pollock* has served as the Vice President and General Manager of our North St. Paul operations since December 2001. From August 1998 to December 2001, Mr. Pollock served as our Vice President of Product Development and Marketing. From April 1998 to August 1998, Mr. Pollock served as interim general manager of our North St. Paul operations. From November 1997 to May 1998, Mr. Pollock served as interim general manager of the handler group we acquired from Advantek Inc. From September 1996 to August 1997, Mr. Pollock served as Business Unit Manager of our IC Automation products group.
- *Mr. Williams* has served as the President of our Dallas operations since April 1998, when we acquired the handler equipment business of WEB Technology, Inc. Mr. Williams co-founded WEB in 1982, and served as its President and CEO from its inception until we acquired it.
- *Mr. Askegaard* has served as our Treasurer since February 1992. From October 1986 to February 1992, Mr. Askegaard served as our Corporate Controller. Mr. Askegaard is a certified public accountant.

## **PART II**{ TC "**PART II**" \f C \l "1" }

# ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.{ TC "ITEM 5.MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS." \f C \langle 1 "2" }

#### **Market Information**

Our common stock is quoted on the Nasdaq National Market under the symbol "ATRM". The following table summarizes the high and low closing sale prices per share of our common stock for the periods indicated, as reported on the Nasdaq National Market. These prices do not include adjustments for retail mark-ups, markdowns or commissions.

		First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2001	High	\$ 4.63	\$ 2.40	\$ 2.25	\$ 1.75
	Low	\$ 1.75	\$ 1.25	\$ 0.71	\$ 0.80
2000	High	\$11.94	\$10.88	\$ 7.50	\$ 6.50
	Low	\$ 6.22	\$ 5.00	\$ 5.38	\$ 2.38

#### Holders

As of March 22, 2002, there were approximately 200 shareholders of record. We estimate that an additional 4,200 shareholders own stock held for their accounts at brokerage firms and financial institutions.

#### **Dividends**

We have never paid cash dividends on our common stock. We currently intend to retain any earnings for use in our operations and do not anticipate paying cash dividends in the foreseeable future.

#### **Recent Sale of Unregistered Securities**

On December 31, 2001, we sold 426,410 shares of our common stock for \$544,000 to a group that included Keith E. Williams, President of our Dallas operations, seven other employees of our Dallas operations, and three of Mr. Williams' adult children. In November 2001, we had purchased the same number of shares of our stock from the same group for the same purchase price. The members of the shareholder group were all shareholders of WEB Technology, Inc. when we acquired the handler equipment business assets of WEB in April 1998. The shareholder group acquired their shares of our common stock as a part of the purchase price we paid WEB.

We issued the shares of our common stock to the shareholder group without registration under the Securities Act of 1933, as amended, in reliance on the exemption provided by Section 4(2) of the Securities Act. Our reliance on this exemption is based upon the fact that these shares were only issued to the shareholder group, the limited number of persons receiving the shares, our reasonable belief that each member of the shareholder group was capable of evaluating the merits and risks of his or her investment decision, the information we made available to the shareholder group regarding us, and the restrictive legends placed on certificates representing the shares, among other factors.

# ITEM 6. SELECTED FINANCIAL DATA. TC "ITEM 6. SELECTED FINANCIAL DATA."

You should read the Selected Financial Data presented below in conjunction with the Consolidated Financial Statements and notes thereto included elsewhere in this Annual Report on Form 10-K, and in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report on Form 10-K.

Five Year Summary (Dollars in thousands, except per share data)

Year ended December 31,	2001	2000	1999 <sup>7</sup>	1998 7	1997 7
Statement of operations data:					
Net sales	\$ 20,014	\$ 46,052	\$ 37,188	\$ 59,619	\$ 67,575
Income (loss) from operations	$(11,143)^1$	$(7,423)^2$	$(15,628)^4$	$(15,276)^5$	$383^{6}$
Income (loss) before cumulative effect of a change in accounting principle	$(10,669)^1$	$(21,705)^{2,3}$	$(9,013)^4$	$(9,450)^5$	1,229 <sup>6</sup>
Cumulative effect of a change in accounting principle	_	$(824)^7$	_	_	_
Net income (loss)	$(10,669)^1$	$(22,529)^{2,3}$	$(9,013)^4$	$(9,450)^5$	$1,229^6$
Per basic and diluted share:					
Income (loss) before cumulative effect of a change in accounting principle	(1.13)	(2.29)	(0.95)	(1.00)	0.14
Cumulative effect of a change in accounting principle	_	(0.09)	_	_	_
Net income (loss)	\$ (1.13)	\$ (2.38)	\$ (0.95)	\$ (1.00)	\$ 0.14
Weighted average common shares outstanding:					
Basic	9,438	9,466	9,470	9,423	8,668
Diluted	9,438	9,466	9,470	9,423	8,923
December 31,	2001	2000	1999	1998	1997
Balance sheet data:					
Total assets	\$ 29,386	\$ 44,374	\$ 63,604	\$ 72,444	\$ 70,894
Long-term debt, less current portion	_	_	_	_	_

<sup>1.</sup> Includes pre-tax charges of \$3.7 million for inventory excess and obsolescence charges and \$2.2 million for unusual charges related to restructuring costs and asset write-downs. See Notes 4 and 6 to the Consolidated Financial Statements.

<sup>2.</sup> Includes pre-tax charges of \$1.7 million for inventory excess and obsolescence charges and \$4.1 million for unusual charges related to restructuring costs and asset write-downs. See Notes 4 and 6 to the Consolidated Financial Statements.

<sup>3.</sup> Includes a \$17.3 million charge to record a valuation reserve against deferred tax assets. See Note 14 to the Consolidated Financial Statements.

<sup>4.</sup> Includes pre-tax charges of \$3.5 million for inventory excess and obsolescence charges and \$1.4 million for unusual charges related to restructuring costs and the write-off of an intangible asset. See Notes 4 and 6 to the Consolidated Financial Statements.

<sup>5.</sup> Includes pre-tax charges of \$3.3 million for inventory excess and obsolescence charges and \$6.5 million for unusual charges related to purchased in-process research and development, restructuring costs and the write-off of intangible assets.

- 6. Includes pre-tax charges of \$1.1 million for inventory excess and obsolescence charges and \$9.5 million for unusual charges related to purchased in-process research and development.
- 7. In 2000, we implemented a change in accounting for revenue recognition for certain types of equipment sales. The cumulative effect of the change in accounting principle was an after-tax charge of \$0.8 million. See Note 2 to the Consolidated Financial Statements. The table below presents unaudited estimated pro forma results for 1999 and 1998 as if the accounting change was in effect for those years. Information is not available to provide pro forma results for 1997.

	1999	1998
Unaudited pro forma (in thousands, except per		
share data):		
Net sales	\$ 39,575	\$ 65,163
Net loss	(8,497)	(7,451)
Net loss per diluted share	\$ (0.90)	\$ (0.79)

# Quarterly Financial Data (Unaudited) (Dollars in thousands, except per share data)

	First Quarter <sup>2</sup>	Second Quarter <sup>2</sup>	Third Quarter <sup>2</sup>	Fourth Quarter
2001 Net sales Gross profit Net loss Net loss per share (basic and diluted)	\$ 8,030 4,195 (2,278) <sup>1</sup> (0.24) <sup>1</sup>	\$ 4,344 1,986 (2,972) <sup>1</sup> (0.31) <sup>1</sup>	\$ 3,876 1,770 (1,061) <sup>1</sup> (0.11) <sup>1</sup>	\$ $3,764$ $(970)^{1}$ $(4,358)^{1}$ $(0.47)^{1}$
2000 Net sales Gross profit Income (loss) before cumulative effect of a change in accounting principle Net income (loss)	\$ $   \begin{array}{c}     10,521 \\     4,827   \end{array} $ $   \begin{array}{c}     (2,779)^1 \\     (3,603)^1   \end{array} $	\$ 10,854 4,965 <sup>1</sup> (1,579) <sup>1</sup> (1,579) <sup>1</sup>	\$ 10,847 6,147 227 <sup>1</sup> 227 <sup>1</sup>	\$ 13,830 6,718 <sup>1</sup> (17,574) <sup>1</sup> (17,574) <sup>1</sup>
Income (loss) per share before cumulative effect of a change in accounting principle (basic and diluted) Net income (loss) per share (basic and diluted)	$(0.29)^1$ $(0.38)^1$	$(0.17)^1$ $(0.17)^1$	$0.02^{1}$ $0.02^{1}$	$(1.85)^1$ $(1.85)^1$

<sup>1.</sup> These quarterly results include unusual charges and credits such as inventory and other asset write-downs, restructuring charges and a deferred tax asset valuation reserve charge discussed elsewhere in this Annual Report on Form 10-K.

<sup>2.</sup> Results for the first, second and third quarters of 2000 were restated to reflect a change in accounting principle. See Note 2 to the Consolidated Financial Statements.

# ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.{ TC "ITEM 7. FINANCIAL CONDITION AND RESULTS OF OPERATIONS." \f C \langle 1 "2" }

#### Overview:

Aetrium specializes in the design, development, manufacturing and marketing of a variety of electromechanical equipment used by the semiconductor industry to handle and test ICs and discrete electronic components.

The semiconductor capital equipment industry is often described as a cyclical growth industry characterized by a long-term growth trend occasionally interrupted by periods of significant declines in revenue. Events impacting us in fiscal year 2001 must be reviewed in the context of the present semiconductor capital equipment cycle.

1998 was a year of declining revenues for the semiconductor industry and declining capital spending. In the first half of 1999, business conditions showed signs of improvement for some portions of the industry. A notable exception was the Dynamic Random Access Memory, or DRAM, market that continued to experience over-capacity and pricing pressures. One of our largest customers, a DRAM manufacturer, announced that it was exiting the merchant market for DRAM devices and would buy minimal equipment in 1999. A second significant customer also indicated that its requirements for our equipment for DRAM applications would be significantly lower than previously forecasted levels. As a result, our 1999 revenues related to DRAM applications were approximately \$20 million lower than 1998 and 1997 levels.

In the second half of 1999, business conditions continued to improve for most IC manufacturers with some adding capacity and ordering new equipment, particularly for their new products. Our revenue levels increased in the second half of 1999 in all product areas except for DRAM applications, which remained weak due to reduced capital spending by the two significant customers mentioned above.

Industry conditions continued to improve through the first three quarters of 2000. We experienced increased demand for our products as semiconductor manufacturers added substantially to their production capacity in response to global demand for semiconductor devices. Towards the end of 2000, the demand for semiconductor equipment decreased sharply as the U.S. and global economies slowed and the demand for semiconductors softened.

In 2001 excess inventories, excess capacity and a continuing decline in the U.S. and global economies combined to produce a record setting downturn in the semiconductor industry. For only the second time in 25 years, fewer ICs were shipped than the year before, as unit sales of ICs fell by 21%. As a result, semiconductor manufacturers severely curtailed capital spending, and total shipments of equipment for the TAP segment of the semiconductor industry dropped approximately 60% from 2000 totals.

As a result of the above factors, we experienced significant declines in revenues in the first half of 1999. Industry conditions improved and our revenue levels increased in the second half of 1999 and the first nine months of 2000 for most of our products. In 2001 we experienced significant declines in revenues in the first three quarters, and our revenues for the year were down 57% from 2000 revenues.

In response to the changing industry conditions, fluctuations in business activity, and overall lower revenue levels compared with peak periods in 1997, we made a number of strategic decisions and implemented various cost control initiatives to improve operating efficiencies throughout the period 1999

to 2001. These actions included discontinuing certain products and technologies, reducing workforce, closing facilities, reorganizing operations, and implementing other cost reductions that are discussed in more detail below.

## **Critical Accounting Policies and Estimates:**

Management's discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. We believe the critical accounting policies that require the most significant judgments and estimates used in the preparation of our consolidated financial statements are those related to revenue recognition, bad debts, inventories, intangible assets, warranty obligations, and income tax accounting.

Our policy is to recognize revenue on product sales upon shipment if contractual obligations have been substantially met and title and risk of loss have passed to the customer, which is generally the case for sales of spare parts, accessories, change kits and some equipment and equipment upgrade sales. Some equipment or equipment upgrade sales contracts, however, may include post-shipment obligations and/or contractual terms that can only be satisfied after shipment, such as installation and meeting customer-specified acceptance requirements at the customer's site. In these cases, revenue is not recognized until such obligations have been completed and there is objective evidence that the applicable contract terms have been met. Due to the high selling price of certain types of equipment, the timing of revenue recognition of a relatively small number of transactions may have a significant impact on our quarterly results.

We maintain an allowance for doubtful accounts which reflects our estimate of losses that may result from the inability of some of our customers to make required payments. If the financial condition of one or more of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

We establish valuation reserves on our inventories for estimated excess and obsolete inventory equal to the difference between the cost of inventory and its estimated market value based upon assumptions about future product demand and market conditions. If actual product demand or market conditions are less favorable than those projected by management, additional inventory reserves may be required.

We review our goodwill and other intangible assets whenever an event or change in circumstances indicates that the carrying value of an asset may be impaired. If such an event or change in circumstances occurs and potential impairment is indicated because the carrying values exceed the estimated future undiscounted cash flows, we would measure the impairment loss as the amount by which the carrying value of the asset exceeds its fair value. We reviewed our goodwill and other intangible assets at December 31, 2001 and concluded that there was no impairment. Effective January 1, 2002 we must adopt Statement of Financial Accounting Standards ("SFAS") No. 142, "Goodwill and Other Intangible Assets." SFAS 142 provides a new methodology for evaluating goodwill impairment. We anticipate that the methodology prescribed by SFAS 142 for evaluating and measuring the impairment of goodwill will result in a goodwill impairment charge of between \$6.0 and \$8.0 million. Once determined, this charge will be reported as a change in accounting principle in the first quarter of 2002. We will be

required by SFAS No. 142 to assess, on at least an annual basis, whether our goodwill carrying value is impaired. In the event that the fair value of our business declines in the future, we may incur additional charges for impairment.

We accrue estimated warranty costs in the period that the related revenue is recognized. Our warranty cost estimates and warranty reserve requirements are determined based upon product performance, historical warranty experience, and costs incurred in addressing product performance issues. Should product performance or cost factors differ from our estimates, adjustments to our warranty accrual may be required.

Our deferred tax assets are reduced by a valuation allowance when we believe it is more likely than not that some portion or all of the deferred tax assets will not be realized. In fiscal 2000, in accordance with SFAS No. 109, "Accounting for Income Taxes," due to recent operating losses, reduced sales order activity in late 2000, and softening industry conditions in early 2001, we recorded a valuation allowance against our deferred tax assets. If we generate taxable income consistently in future periods, our assessment of our ability to realize these deferred tax assets may change and we may reduce this valuation allowance, which would be reported as an income tax benefit.

# **Results of Operations:**

Selected statement of operations items as a percentage of our net sales for 2001, 2000 and 1999 were as follows:

	2001	2000	1999
Net sales	100.0%	100.0%	100.0%
Cost of goods sold	65.1	50.8	64.3
Gross profit	34.9	49.2	35.7
Operating expenses:			
Selling, general and administrative	56.1	37.9	47.4
Research and development	23.5	18.5	26.4
Unusual charges	11.0	8.9	3.9
Total operating expenses	90.6	65.3	77.7
Loss from operations	(55.7)	(16.1)	(42.0)
Other income, net	1.2	0.9	1.6
Loss before income taxes	(54.4)	(15.2)	(40.4)
Income tax benefit (provision)	1.1	(31.9)	16.2
Net loss before cumulative effect of a change in			
accounting principle	(53.3)	(47.1)	(24.2)
Cumulative effect of a change in accounting —	. ,	, ,	, ,
Staff Accounting Bulletin No. 101	_	(1.8)	
Net loss	(53.3)%	(48.9)%	(24.2)%

#### **Net Sales:**

Our net sales by product line as a percentage of total sales for fiscal 2001, 2000 and 1999 were as follows:

	2001	2000	1999
Test handlers	53%	52%	46%
IC automation products	16	22	26
Reliability and environmental test equipment	18	13	12
Change kits and spare parts	13	13	16
Total	100%	100%	100%

In December 1999, the Securities and Exchange Commission ("SEC") issued SAB101. SAB101 summarizes the SEC's views in applying generally accepted accounting principles to selected revenue recognition issues, including equipment sales contracts that contain provisions related to installation and customer acceptance.

Prior to 2000, we generally recognized revenue upon shipment if contractual obligations were substantially complete, post-delivery obligations were inconsequential, and customer acceptance and payment were reasonably assured. In the fourth quarter of 2000, in accordance with SAB101 guidance, we changed our accounting policy such that certain equipment revenue, depending on contract terms and other factors, is recognized subsequent to shipment, generally after installation and customer-specified acceptance processes have been completed. As required, the accounting change was made retroactive to January 1, 2000. The cumulative effect of the accounting change was an after-tax charge of \$824,228 (\$.09 per share), which includes revenue of approximately \$3 million less cost of sales and certain related expenses such as commissions. Substantially all of the \$3 million in deferred revenue was recognized in 2000 upon satisfying the new revenue recognition criteria. Approximately \$4 million of 2000 equipment shipments was deferred as of December 31, 2000, substantially all of which was recognized as revenue in fiscal 2001.

If SAB101 guidance had been effective in fiscal 1999, our estimated consolidated results of operations on an unaudited pro forma basis would have been as follows (in thousands, except per share data):

Unaudited pro forma	
Net sales	\$ 39,575
Net loss	(8,497)
Net loss per diluted share	(0.90)
Reported net loss per diluted share	\$ (0.95)

Net sales decreased 57% to \$20 million in 2001 compared with \$46.1 million in 2000. The severe semiconductor industry downturn experienced in 2001 resulted in significant decreases in our revenues for the first three quarters and sequentially flat revenues in the fourth quarter. The decline in revenues impacted all of our product lines. Sales of our test handlers, which increased slightly from 52% to 53% as a percentage of our revenues, were heavily concentrated in new IC package applications, due to the excess capacity that existed for mature IC packages. Sales of our reliability test equipment increased from 13% to 18% as a percentage of our revenues, and were heavily concentrated in copper applications, as semiconductor manufacturers continued to invest in the new copper process. Our IC automation products declined as a percentage of our revenues both because of the impact of the industry downturn on our OEM customers and because of a sharp decline in our sales of burn-in board loaders. Sales of spare parts and change kits were unchanged as a percentage of our revenues, and declined in all areas from 2000 levels.

Net sales increased 24% to \$46.1 million in 2000 compared with \$37.2 million in 1999. Generally improving industry conditions in 1999 continued into 2000 and remained favorable for most of the year. Sales of test handlers, which represented 52% of total net sales, increased 39% in 2000, driven by strong demand for non-memory test handlers as customers added production capacity in response to increased global demand for semiconductor devices. This increase was offset somewhat by significantly reduced sales of test handlers for DRAM applications due to excess capacity in that segment and our related decision in the second quarter of 2000 to discontinue marketing our M3200 DRAM test handler product. Sales of our IC automation products, which represented 22% of total net sales, increased 5% due to generally improved industry conditions. Sales of reliability and environmental test equipment increased 36% in 2000. Sales of our reliability test equipment more than doubled as the Model 1164 test system continued to gain market acceptance and broaden its customer base. Sales of environmental test equipment, which represented less than 5% of 1999 revenue, were insignificant in 2000 as we discontinued this product line in the first quarter and licensed it to a third party. Sales of change kits and spare parts were relatively flat in 2000 as reduced spares sales to DRAM manufacturers offset sales increases to other segments.

#### **Gross Profit:**

Gross profit, as a percentage of net sales, was 34.9% in 2001 compared with 49.2% in 2000 and 35.7% in 1999. These results include unusual charges as follows:

- In fourth quarter 2001, we recorded unusual inventory write-downs of \$2.7 million. By year-end 2001, the consensus forecast of industry analysts was that the severe semiconductor industry downturn that started in late 2000 had reached an end, but that significant recovery of the semiconductor equipment industry would not occur before the second half of 2002, and that the recovery for our industry would be slow. Previous industry analyst forecasts had suggested that the semiconductor industry downturn would not be as severe or as long. We determined that under the conditions most recently forecasted, by the time significant capacity requirements emerge for mature IC packages, some of our older products focused on those applications will be superceded by our newer products and those of our competitors. Accordingly, we wrote down the value of our inventories for these older products to their estimated net realizable values based upon a revised expectation of limited future sales of these products.
- In 2000, we recorded unusual inventory write-downs totaling \$935,000. The write-downs were primarily related to inventories for DRAM test handler applications, a volatile market segment that we decided not to pursue further. In the second quarter, we recorded an inventory write-down of \$450,000 related to our decision to discontinue marketing and manufacturing our oldest DRAM test handler, the model M3200. As a result of this decision, all inventories related to the production of the M3200 were written down to scrap value and were substantially disposed of by December 31, 2000. In the fourth quarter, we recorded an inventory write-down of \$485,000. This charge was primarily related to our decision to discontinue marketing our DTX thermal test handler product to the DRAM market segment and rather to focus our marketing of the DTX on high power logic semiconductor applications, which required significant product design changes. As a result of this decision, DTX-related inventories were evaluated and written down to estimated net realizable value.
- In the second quarter of 1999, one of our largest customers, a DRAM manufacturer, announced that it was exiting the merchant market for DRAM devices and would buy minimal equipment from us in 1999. A second significant customer also indicated that its equipment requirements for DRAM applications would be significantly lower than previously forecasted

levels. In response to these events and considering the potential obsolescence associated with upcoming transitions to new products, inventories were analyzed and we determined that a \$2.5 million unusual inventory write-down was required to properly value inventories at net realizable value.

- The unusual inventory write-downs in 2001, 2000 and 1999 were determined through a detailed analysis of inventories with consideration given to anticipated usage through future equipment and spares sales, and the potential use of common parts in other products.
- In addition to the unusual inventory charges discussed above, we regularly record inventory charges due to the evolving nature of our products. Our products are continually improved and modified to better meet evolving market requirements. These product improvements and modifications regularly result in parts inventory obsolescence as parts are replaced due to the product changes. To address this recurring obsolescence, we recorded inventory charges of \$980,000 in 2001, \$814,000 in 2000 and \$961,000 in 1999, in addition to the unusual inventory charges discussed above.

Excluding the unusual charges described above, gross profit was 48.3% of net sales in 2001, compared with 51.2% and 42.4% in 2000 and 1999, respectively. The gross profit margin decrease in 2001 was due primarily to lower overall volumes, offset in part by reduced overhead expenses resulting from restructuring activities during the year. We significantly reduced our manufacturing overhead expenses in 2001 through workforce reductions and reorganization of our operations at our North St. Paul, Minnesota operations and the consolidation of those operations into a single facility. The gross profit margin increased in 2000 due to higher overall volumes, favorable mix, and reduced overhead expenses resulting from restructuring activities during the year. Sales in 2000 included a significantly larger mix of high-margin test handlers. We significantly reduced our manufacturing overhead expenses in 2000 by closing our Lawrence, Massachusetts facility, consolidating our two manufacturing plants in Texas, and reducing costs at our plant in Poway, California.

#### **Selling, General and Administrative Expenses:**

Selling, general and administrative expenses were \$11.2 million in 2001, compared with \$17.5 million in 2000 and \$17.6 million in 1999. Commissions decreased in 2001 due to lower sales levels. In addition, we significantly reduced selling, general and administrative expenses in 2001 through workforce reductions, the closing of our Poway, California facility, consolidation of our North St. Paul, Minnesota operations into a single facility, and reorganization of our North St. Paul, Minnesota operations. Commissions and service expenses increased in 2000 to support higher sales levels. These increases were offset by personnel, facility, and other operating cost reductions we realized through restructuring activities, including the closing of our Lawrence, Massachusetts and Grand Prairie, Texas facilities in early 2000. Amortization expense associated with acquisition-related intangible assets, which was included in selling, general and administrative expenses, totaled \$1.6 million, \$1.6 million, and \$1.9 million in 2001, 2000, and 1999, respectively.

#### **Research and Development:**

Research and development expenses were \$4.7 million in 2001 compared with \$8.5 million in 2000 and \$9.8 million in 1999. The decrease in 2001 was primarily attributable to a reduction in engineering personnel, including workforce reductions related to the closing of our Poway, California facility in early 2001, as well as workforce reductions we made during the course of 2001 at our two remaining facilities. The decrease in 2000 was primarily attributable to a reduction in engineering

personnel, including workforce reductions related to the closing of our Lawrence, Massachusetts and Grand Prairie, Texas facilities in early 2000.

#### **Unusual Charges:**

#### Fiscal 2001

During 2001, Aetrium continued to be impacted by the downturn in the semiconductor equipment industry that began in late 2000. As a result, we took additional steps to improve operating efficiencies and reduce costs. During the year we completed the transfer of our operations in Poway, California to North St. Paul, Minnesota; we restructured our operations in Minnesota; we reduced our facility costs through the consolidation of operations; and we significantly reduced our workforce. Unusual charges recorded in 2001 related to these activities were as follows (dollars in thousands):

Restructuring charges	— severance costs	\$ 928
	— facility exit costs	<u>799</u>
Total restructuring ch	1,727	
Write-down of equipment and leaseholds		215
Moving expenses and other	261	
Total unusual charges		\$2,203

During 2001, in response to declining revenue levels throughout the year, we implemented workforce reductions in March, April, June, and December. These workforce reductions included the elimination of 98 positions in manufacturing, sales, administration, and engineering. We recorded charges of \$928,000 for severance and related costs associated with these terminations. The charges were recorded in the periods when the restructuring plans were approved by management, severance benefits were determined, and the affected employees were notified. The workforce reductions represented quarterly cost savings of approximately \$1.3 million.

In May 2001, we consolidated our North St. Paul, Minnesota operations from two buildings into one. One of the buildings, which is under lease through February 2006, was vacated prior to June 30, 2001. We recorded a facility exit charge of \$387,000 in the second quarter for estimated non-cancelable lease payments and other facility costs we expected to incur during the estimated time needed to find a sub-tenant. In the fourth quarter, due to our inability to locate a single sub-tenant to occupy the building, we changed our strategy to consider multiple sub-tenants. In November 2001, we subleased 7,500 square feet of the building to a third party for a two-year period. In January 2002, we subleased an additional 8,000 square feet to another party for a period ending concurrent with the master lease. We are continuing to market the remaining unused space in the building. As of December 31, 2001, we estimate that our net costs after sublease income to be incurred over the remainder of the master lease will be approximately \$450,000. In the fourth quarter, we recorded an additional charge of \$219,000 to increase the accrual to that amount. Also, in connection with vacating this facility in the second quarter, we recorded a charge of \$215,000 related to abandoned leaseholds and losses on the sale of certain equipment during the quarter.

Aetrium leases a vacant facility in Grand Prairie, Texas that was utilized by our Grand Prairie operations until that business was transferred to our Dallas facility in the first quarter of 2000. The lease expires in June 2003. We continue to work with the owner of the building to locate a sub-tenant for the property. In 2001, due to our inability to locate a subtenant and due to softening economic conditions late in the year, we recorded an additional facility exit reserve of \$193,000 to cover the non-cancelable lease payments and other costs we estimate we will incur until a new tenant can be found.

In 2001, we incurred moving and other transition costs amounting to \$261,000 that were related to restructuring our operations. Of this amount, approximately \$203,000 was incurred in the first quarter primarily related to the relocation and other final costs associated with the transfer of operations from Poway, California to Minnesota and \$58,000 was related to moving expenses incurred in the second quarter when we combined our operations in Minnesota from two buildings into one.

The following table summarizes the severance and facility exit restructuring charges accrued and the associated activity for the year ended December 31, 2001 (dollars in thousands):

	Severance and	Facility	
	Benefits	Exit Costs	Total
Accrual balance, December 31, 2000	\$ 491	\$ 305	\$ 796
Severance and related charges:			
Workforce reduction – first quarter	246	_	246
Workforce reduction – second quarter	317	_	317
Workforce reduction – fourth quarter	365	_	365
Facility exit charges:			
North St. Paul, MN facility-current year charge	_	606	606
Grand Prairie, TX facility –accrual increase	_	193	193
Cash payments	(1,015)	(400)	(1,415)
Accrual balance, December 31, 2001	\$ 404	\$ 704	\$1,108

We estimate that the accrued severance and facility exit costs at December 31, 2001 will be paid or utilized as follows: \$0.5 million by June 30, 2002; an additional \$0.3 million by December 31, 2002; approximately \$25,000 per quarter thereafter.

#### Fiscal 2000

During 2000, Aetrium initiated a number of activities to reduce costs and improve operating efficiencies. These actions included consolidating our two operations in Texas, closing our Lawrence, Massachusetts facility, and restructuring our operations in Poway, California. Unusual charges recorded in 2000 related to these activities were as follows (dollars in thousands):

Restructuring charges	— severance costs	\$2,157
	— facility exit costs	<u>958</u>
Total restructuring charges		3,115
Write-down of equipment and leaseholds		495
Write-down of intangible assets		415
Other	51	
Total unusual charges		\$4,076

### Consolidation of Texas Operations.

During the first quarter of 2000, we consolidated our two operations in Texas. Strategically significant manufacturing and development activities being conducted at our Grand Prairie facility were transferred to our Dallas facility where operations associated with the product line we acquired from WEB Technology, Inc. are located. The transfer was completed in mid-March 2000 and the Grand Prairie facility was closed in late March 2000.

Charges related to this restructuring included approximately \$565,000 for severance and related costs; \$385,000 for facility exit costs, including estimated non-cancelable lease payments and other

facility costs we expected to incur during the estimated time needed to find a sub-tenant; \$121,000 related to the write-down of abandoned leaseholds and equipment; and \$186,000 related to the write-down of impaired intangibles, primarily capitalized trained workforces. The elimination of 56 positions in Texas and lowered facility and other costs resulted in quarterly cost savings of approximately \$0.9 million, which reductions were partially offset by increased costs at the Dallas facility.

#### Closure of Lawrence, Massachusetts Facility.

During the first quarter of 2000, we decided to close our Lawrence, Massachusetts facility. The Thermal Forcing System product line and the development activities associated with our proprietary conductive thermal technology were transferred to our North St. Paul, Minnesota facility. We sold or licensed certain assets associated with the Lawrence operation, including the environmental test equipment product line. Consideration received for these assets was the transferee's assumption of certain future obligations related to the transferred product line and royalties on future sales. As indicated below, the transferee of the product line subsequently bought out the royalty contract later in the year. We ceased operations at our Lawrence facility in late March 2000, and the facility was vacated in May 2000.

Charges related to closing this facility included approximately \$844,000 for severance and related costs and \$101,000 for facility exit costs, including rent, taxes and other facility expenses we incurred during the six weeks from the time operations ceased until we moved out of the facility. In addition, we recorded charges in the first quarter of \$229,000 related to impaired intangibles associated with the transferred product line and \$672,000 for losses on the sale of the business assets and abandoned leaseholds. The charge related to the loss on the sale of the business assets was subsequently reduced by \$629,000 in the second half of 2000 for proceeds received from the royalty contract, resulting in a net charge of \$43,000. Because the transferee of the product line bought out the royalty contract, we will not receive royalty payments in the future under the contract.

The licensing of the environmental test equipment product line and the loss of related revenues is not expected to have a significant adverse impact on future operations as it accounted for less than 5% of our fiscal 1999 revenue of \$37.2 million. The elimination of 38 positions in Lawrence and reduced facility costs resulted in quarterly cost reductions of approximately \$0.6 million, which reductions were partially offset by increased costs at our Minnesota facility.

#### Poway, California Restructuring.

In the second quarter of 2000, we announced that we would transfer manufacturing and certain administrative functions at our Poway, California facility to our North St. Paul, Minnesota operations. Certain marketing and engineering activities were to remain in Poway. The restructuring plan included a workforce reduction, vacating a leased 45,000 square-foot building, and transferring the remaining marketing and engineering personnel to a 10,000 square-foot facility nearby. This action resulted in the elimination of 20 positions in manufacturing, engineering, accounting and administration. The lease for the 45,000 square-foot facility was subsequently assigned to a third party.

In October 2000, we announced our intention to transfer the remaining marketing and engineering operations in Poway to North St. Paul and to close the Poway facility. Prior to December 31, 2000, management had approved the restructuring plan that included the elimination of an additional 20 positions in engineering and administration and closing the facility by March 31, 2001. The affected employees were identified and notified of the terminations and related severance benefits prior to December 31, 2000. Some employees were terminated prior to December 31, 2000 with the remaining termination dates scheduled for March 31, 2001 or sooner. We subleased the 10,000 square-foot facility to a third party, effective April 1, 2001.

Charges related to the Poway restructuring during 2000 included approximately \$748,000 for severance and related costs, \$472,000 for facility exit costs, and \$331,000 related to the write-down of abandoned leaseholds and equipment. The severance costs were related to the elimination of a total of 40 positions. The facility exit costs were related to exiting both facilities and included noncancellable lease payments and other operating costs incurred after vacating as well as costs incurred to sublease the facilities.

The elimination of 40 positions and reduced facility and other costs associated with the Poway restructuring represented quarterly cost savings of approximately \$1.0 million. These cost reductions were partially realized in the second half of 2000 after the second quarter restructuring with the balance of the estimated savings being realized after the facility closed on March 31, 2001. These cost decreases were partially offset by increases at the North St. Paul facility related to the transfer of operations.

The following table summarizes the severance and facility exit restructuring charges accrued and the associated activity for the year ended December 31, 2000 (dollars in thousands):

	Severance and	Facility	
	Benefits	Exit Costs	Total
Accrual balance, December 31, 1999	\$ —	\$ —	\$ —
Restructuring charges:			
Texas consolidation	565	385	950
Lawrence, MA	844	101	945
Poway, CA	748	472	1,220
Cash payments	(1,666)	(653)	(2,319)
Accrual balance, December 31, 2000	\$ 491	\$ 305	\$ 796

#### Fiscal 1999

In 1999, Aetrium recorded unusual charges as follows (dollars in thousands):

Restructuring charge — severance costs	\$ 352
Write-off of intangible asset	1,155
Other	(61)
Total	\$1,446

In order to reduce operating costs, we implemented two workforce reductions in 1999. These reductions included the termination of 48 employees resulting in estimated quarterly cost savings of approximately \$0.5 million. The restructuring charges were recorded in the periods when the affected employees were identified, severance benefits were determined, and the affected employees were notified and terminated. Accordingly, restructuring charges of \$190,000 and \$162,000 were recorded in the first and second quarters of 1999, respectively. The severance costs were paid prior to December 31, 1999.

When we acquired the handler equipment business of WEB Technology, Inc. ("WEB") in April 1998, WEB had a contractual relationship with a customer to develop and deliver certain automation equipment. A value of \$1.4 million was capitalized as an intangible asset related to this customer relationship at the time of the acquisition. In the fourth quarter of 1999, due to a change in its business environment and a shift in its strategic business plan, the customer requested that we discontinue working on the project. Prior to December 31, 1999, we negotiated a termination of the contract with the customer and determined that the project would not be resumed. As a result, we determined that the intangible asset related to this customer relationship was impaired and had no future economic value and the remaining unamortized balance of \$1.2 million was written off at December 31, 1999.

#### Other Income, Net:

Other income, net, which consists primarily of interest income from the investment of excess funds, amounted to \$248,000 in 2001, compared with \$429,000 in 2000 and \$607,000 in 1999. The decreases are attributable to lower average cash balances during each year and generally declining interest rates.

#### **Income Taxes:**

In the fourth quarter of fiscal 2000, due to recent operating losses and weakening industry conditions in late 2000 and early 2001, we recorded a valuation allowance against our deferred tax assets and we determined that we would not record any income tax expense or benefit in the future until we are consistently profitable on a quarterly basis. Therefore, no income tax benefit related to current operations was recorded in fiscal 2001. However, we did record an income tax benefit of \$0.2 million in the quarter ended September 30, 2001 related directly to income taxes paid and expensed prior to 2001 that were refunded to us during the quarter.

#### Financial Condition, Liquidity and Capital Resources:

Cash and cash equivalents decreased by approximately \$2.0 million in 2001 to \$7.2 million. Operating activities used \$1.9 million of cash in 2001. The major components of cash flows used in operating activities were a net loss of \$10.7 million and decreases in accounts payable of \$3.2 million, accrued compensation of \$1.0 million, and other accrued liabilities of \$1.9 million, partially offset by \$2.2 million in depreciation and amortization expense, write-downs of the carrying value of inventories of \$3.7 million, restructuring charges of \$1.7 million and a decrease in accounts receivable of \$6.5 million. The decreases in accounts payable and accounts receivable are primarily attributable to lower production and revenue levels in late 2001 compared to the prior year due to the severe downturn in the semiconductor industry. The decrease in accrued compensation is due to workforce reductions and wage reductions we implemented in 2001 in response to the semiconductor industry downturn.

Cash and cash equivalents decreased by approximately \$4.1 million in 2000 to \$9.1 million. Operating activities used \$3.7 million of cash in 2000. The major components of cash flows used in operating activities were a net loss of \$22.5 million, increases in accounts receivable of \$1.9 million and inventories of \$3.3 million and a decrease in other accrued liabilities of \$2.6 million, partially offset by \$2.6 million in depreciation and amortization expense, a \$15.4 million decrease in deferred taxes, \$2.9 million in write-downs of inventories and other assets and \$3.1 million in restructuring charges. Despite higher sales volume, receivables decreased in 2000 due to the fourth quarter adoption of SAB101, which has the effect of shortening the length of time receivables are outstanding because we do not record the receivable upon shipment in cases where customer acceptance provisions cause us to defer revenue recognition. Inventories and accounts payable increased in 2000 due to increased production and sales activity in late 2000 compared to 1999. Also, a portion of the increase in inventories is attributable to the inclusion of equipment at customer sites for which revenue is deferred until installation and/or acceptance is completed.

Cash and cash equivalents decreased by approximately \$4.9 million in 1999 to \$13.2 million. Operating activities used \$4.0 million in cash in 1999. The major components of cash flows used in operating activities were a net loss of \$9.0 million and a \$6.8 million increase in deferred taxes, partially offset by \$3.3 million in depreciation and amortization expense and \$4.6 million in write-downs of inventories and other assets. In addition, we received net income tax refunds of approximately \$2.4 million in 1999.

Our use of cash in investing activities in 2001, 2000 and 1999 related principally to expenditures for property and equipment, which amounted to \$71,000, \$599,000, and \$531,000, respectively. During the last three years, we have used approximately \$1.0 million in cash to repurchase shares of our stock. In November 2001, we purchased 426,410 shares of our common stock for \$544,000 from a shareholder group. In December 2001, we sold the same number of shares of our stock to the same group for the same purchase price. See "Recent Sale of Unregistered Securities" under "Item 5. Market for the Registrant's Common Equity and Related Stockholder Matters." In 1999, we purchased \$430,000 of our common stock from certain shareholders of WEB Technology, Inc. pursuant to right of first refusal agreements entered into with such shareholders in connection with the acquisition of the handler equipment business of WEB in 1998.

We believe our cash and short-term investments of \$7.2 million at December 31, 2001 will be sufficient to meet capital expenditure and working capital needs for at least the next twelve months. Historically we have supported our capital expenditure and working capital needs with cash generated from operations, and in the long term we expect to continue to do the same. However, future semiconductor industry downturns could affect the demand for and price of our products, which could affect future cash flows. Also, we may acquire other companies, product lines or technologies that are complementary to our business, and our working capital needs may change as a result of such acquisitions.

Future minimum annual lease payments under operating leases as of December 31, 2001 are as follows:

2002	\$ 974,000
2003	693,000
2004	437,000
2005	437,000
2006	55,000
Total minimum lease payments	\$2,596,000

The above minimum lease payments have not been reduced by minimum sublease rentals of \$0.6 million due in the future under noncancellable subleases.

The above minimum lease payments do not include the facility lease that has been assigned to a third party and on which we remain contingently liable. The lease expires in January 2010 and minimum remaining payments amount to \$4.1 million as of December 31, 2001.

#### **Recent Accounting Pronouncements**

In June 2001, the FASB issued Statement of Financial Accounting Standards ("SFAS") No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS 141 eliminates the pooling-of-interests method of accounting for business combinations, requiring that all business combinations initiated after June 30, 2001 be accounted for using the purchase method. SFAS 142 provides that goodwill and other intangible assets with indefinite lives are no longer amortized, but rather are reviewed for impairment at least annually and more frequently in certain circumstances using a two step process. The first step is to identify a potential impairment and, in transition, this step must be measured as of the beginning of the fiscal year. However, a company has six months from the date of adoption to complete the first step. The second step of the goodwill impairment test measures the amount of the impairment loss (measured as of the beginning of the year of adoption), if any, and must be completed by the end of our fiscal year. Aetrium will adopt SFAS 142 effective January 1, 2002. We estimate that the elimination of goodwill amortization will result in a reduction in amortization expense of approximately \$200,000 per quarter beginning in the first quarter of 2002. We also anticipate that the

methodology prescribed by SFAS 142 for evaluating and measuring the impairment of goodwill will result in a goodwill impairment charge of between \$6.0 and \$8.0 million. Once determined, this charge will be reported as a change in accounting principle in the first quarter of 2002.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." This statement addresses financial accounting and reporting for the impairment of long-lived assets and for long-lived assets to be disposed of and supercedes SFAS 121. However, SFAS 144 retains the fundamental provisions of SFAS 121 for the recognition and measurement of the impairment of long-lived assets to be held and used and the measurement of long-lived assets to be disposed of by sale. We will adopt SFAS 144 effective January 1, 2002. We do not expect this statement to affect our financial position or results of operations.

Aetrium adopted SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" on January 1, 2001. This standard establishes accounting and reporting standards for derivative instruments and hedging activities. Since we do not hold derivative instruments or engage in hedging activities, the adoption of SFAS 133 did not have an impact on our financial statements.

#### **Business Risks and Uncertainties:**

Several important risks and uncertainties exist which could have an impact on our future operating results. These factors could cause our actual results to differ materially from our anticipated results or results that are reflected in any forward-looking statements in this Annual Report on Form 10-K. These factors, and their impact on the success of our operations and our ability to achieve our goals, include the following:

#### Market Fluctuations in the Semiconductor Industry

Our business and results of operations depend upon capital expenditures by manufacturers of semiconductor devices. As a result, our operating results are materially dependent upon economic and business conditions in the semiconductor industry. This industry has been subject to significant market fluctuations and has experienced periodic downturns, which often have had a disproportionate effect on capital equipment suppliers, such as Aetrium. In periods of excess capacity, the semiconductor industry sharply cuts purchases of capital expenditures, such as our products. A downturn or slowdown in the semiconductor industry could substantially reduce our revenues and operating results and could harm our financial condition. The semiconductor industry is currently experiencing a severe downturn of unprecedented magnitude that has been ongoing for several quarters. The severe downturn being experienced in the semiconductor industry over the past several quarters has reduced our revenues, and we expect that our revenues will remain at reduced levels until semiconductor industry capital expenditures increase.

#### Fixed Cost Constraints on Reduction of Expenses

Many of our expenses, particularly those relating to properties, capital equipment and manufacturing overhead, are fixed in the short term. Accordingly, reduced demand for our products and services causes our fixed production costs to be allocated across reduced production volumes, which negatively affects our gross margins and profitability. Our ability to reduce expenses is further constrained because we must continue to invest in research and development to maintain our competitive position and to maintain service and support for our existing customer base. Reduced production volumes contributed to a decline in our gross margins in fiscal 2001. We expect that our gross margins will continue to be negatively affected by reduced production volumes, offset somewhat by the cost reduction actions we took in December 2001. Our current visibility on our future operating results is

severely limited given the current semiconductor industry downturn, and we cannot accurately predict if or when the production volumes will increase or if or when our operating results will improve.

## Impact of Cost Reduction and Reorganization Actions

During the course of fiscal year 2001, as the downturn in the semiconductor industry continued to deepen, we implemented cost reduction and reorganization actions to address our declining revenues, such as workforce reductions, consolidation of operations, pay freezes and reductions, and reductions in other expenditures. In the event our revenue levels decline further, we may be required to implement additional cost reduction actions. Our reduced personnel and expenditure levels and the loss of the capabilities of personnel we have terminated could inhibit us in the timely completion of product development efforts, the effective service of and responsiveness to customer requirements, and the timely ramp up of production in response to eventual improving market conditions.

#### Successful Development and Introduction of New Products and Product Improvements

We operate in an industry that is highly competitive with respect to timely product innovations. The market for our products is characterized by rapid technological change and evolving industry standards. The development of more complex ICs has driven the need for new equipment and processes to produce such devices at an acceptable cost. We believe that our future success will depend in part upon our ability to anticipate changes in technologies, IC package types, market trends and industry standards. If we cannot successfully develop and introduce new and enhanced cost-effective products on a timely basis that are accepted in the marketplace, our business and operating results may suffer.

#### Reliance on Significant Customers

We rely on a limited number of customers for a substantial percentage of our net sales. A reduction, delay or cancellation of orders from one or more of these significant customers, or the loss of one or more of these customers, could negatively impact our operating results.

#### Reduction in the Sales Efforts by our Current Distributors

We market and sell our test handlers and reliability test products outside of the United States primarily through international distributors that are not under our direct control. We have limited internal sales personnel. A reduction in the sales efforts by our current distributors, or the termination of one or more of these relationships with Aetrium, could negatively affect our operating results.

#### Reduction in our International Sales

We expect that international sales will continue to account for a significant portion of our net sales. As a result, our operations are subject to a number of risks inherent in international business activities, which could negatively impact our operating results

#### Failure to Retain our IC Processing Equipment OEMs

We market our IC Automation product line to a limited number of IC processing equipment OEMs. Our ability to retain our OEM customers and attract new OEM customers depends upon a number of factors, including the changing needs and financial condition of these customers. Our failure to retain OEM customers could result in the loss of IC Automation product line sales, as well as the loss of outstanding receivables due from such OEM customers.

## Supply of Significant Components for our Products

Certain significant components used in our products, including certain contactor components, printed circuit boards, and refrigeration systems, are currently available only from sole or limited sources. We do not maintain long-term supply agreements with most of our suppliers and we purchase most of our components through individual purchase orders. Our inability to obtain components in required quantities or of acceptable quality could result in delays or reductions in product introductions or shipments, which could damage our relationships with our customers and cause our operating results to suffer.

We have no obligation to update the above information, including the forward-looking statements, in this Annual Report on Form 10-K.

# ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.{ TC "ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK." \f C \langle 1"2" }

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. We place our investments with high credit issuers and limit the amount of credit exposure to any one issuer. We have no investments denominated in foreign currencies and therefore we are not subject to foreign exchange risk. We mitigate default risk by investing in high credit quality securities and by positioning our portfolio to respond appropriately to a significant reduction in a credit rating of any investment issuer or guarantor. As of December 31, 2001, our portfolio consisted primarily of high quality taxable instruments, including corporate notes and bonds, money market funds, and bank repurchase agreements.

# ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.{ TC "ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA." \f C \land 1" 2" }

Our Consolidated Financial Statements and the report of our independent accountants are included elsewhere in this Annual Report on Form 10-K. The index to this report and the financial statements is included in Item 14 (a) (1) below.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.{ TC "ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE." \f C \l "2" }

None.

## **PART III**{ TC "**PART III**" \f C \l "1" }

# ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.{ TC "ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT." \f C \land 12" }

## **Directors of the Registrant**

The information under the captions "Election of Directors — Information About Nominees" and "Election of Directors — Other Information About Nominees" in our 2002 Proxy Statement is incorporated herein by reference.

#### **Executive Officers of the Registrant**

The information under the caption "Item 4A. Executive Officers of the Registrant" located elsewhere in this Annual Report on Form 10K is incorporated herein by reference.

#### Compliance with Section 16(a) of the Exchange Act

The information under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in our 2002 Proxy Statement is incorporated herein by reference.

# ITEM 11. EXECUTIVE COMPENSATION.{ TC "ITEM 11. EXECUTIVE COMPENSATION." \f C \l "2" }

The information under the captions "Election of Directors — Compensation of Directors" and "Executive Compensation and Other Benefits" in our 2002 Proxy Statement is incorporated herein by reference.

# ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.{ TC "ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT." \f C \langle "2" }

The information under the caption "Security Ownership of Certain Beneficial Owners and Management" in our 2002 Proxy Statement is incorporated herein by reference.

# ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.{ TC "ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS." \f C \langle "2" }

The information under the caption "Certain Relationships and Related Transactions" in our 2002 Proxy Statement is incorporated herein by reference.

### **PART IV**{ TC "**PART IV**" \f C \l "1" }

# ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K{ TC "ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K" \f C \langle 1"2" }

### (a) 1. Financial Statements of Registrant.

The following Consolidated Financial Statements of Aetrium and the Independent Accountants' Report thereon are included herein:

<u>Description</u>	<u>Page</u>
Report of Independent Accountants	F-1
Consolidated Financial Statements:	
Consolidated Statements of Operations	F-2
Consolidated Balance Sheets	F-3
Consolidated Statements of Changes in Shareholders' Equity	F-4
Consolidated Statements of Cash Flows	F-5
Notes to Consolidated Financial Statements	F-6 F-20

### (a) 2. Financial Statement Schedules of Registrant.

The following financial statement schedule is included herein and should be read in conjunction with the financial statements referred to above:

Financial Statement Schedule: II. Valuation and Qualifying Accounts

#### Years ended December 31, 1999, 2000, and 2001

	Balance at beginning of			Balance at end of
<u>Description</u>	period	<b>Additions</b>	<b>Deductions</b>	<u>period</u>
Allowance for doubtful accounts:				
1999	\$ 537,000	\$ 57,000	\$ (75,000)	\$ 519,000
2000	519,000	0	(5,000)	514,000
2001	514,000	0	(119,100)	394,900
Inventory excess and obsolescence				
reserve:				
1999	\$3,628,800	\$3,460,800	\$ (3,600,200)	\$ 3,489,400
2000	3,489,400	1,749,300	(2,980,800)	2,257,900
2001	2,257,900	3,657,000	(1,743,900)	4,171,000
Warranty reserve:				
1999	\$ 894,800	\$ 826,300	\$ (899,700)	\$ 821,400
2000	821,400	802,300	(1,190,300)	433,400
2001	433,400	503,100	(481,700)	454,800

All other schedules are omitted as the required information is inapplicable or the information is presented in the financial statements or related notes.

#### (a) 3.Exhibits.

The exhibits to this Annual Report on Form 10-K are listed in the Exhibit Index attached hereto.

If you were one of our shareholders on March 29, 2002 and you want a copy of any of the exhibits listed or referred to above, we will furnish it to you at a reasonable cost upon your written request sent to Aetrium Incorporated, 2350 Helen Street, North St. Paul, Minnesota 55109; Attn.: Shareholder Relations.

The following is a list of each management contract or compensatory plan or arrangement we are required to file as an exhibit to this Annual Report on Form 10-K pursuant to Item 14(a)(3):

- 1. Form of Incentive Stock Option Agreement (incorporated by reference to Exhibit 10.6 to our Form 10-KSB for the year ended December 31, 1993) (File No. 0-22166).
- 2. Form of Non-Statutory Stock Option Agreement (incorporated by reference to Exhibit 10.7 our Form 10-KSB for the year ended December 31, 1993) (File No. 0-22166).
- 3. 1993 Stock Incentive Plan, as amended (incorporated by reference to Exhibit 10.2 to our Annual Report on Form 10-K for year ended December 31, 1997) (File No. 0-22166).
- 4. Salary Savings Plan (incorporated by reference to Exhibit 10.3 to our Registration Statement on Form SB-2) (File No. 33-64962C).
- 5. Employee Stock Purchase Plan (incorporated by reference to Exhibit 99.1 to our Registration Statement on Form S-8) (File No. 33-74616).
- 6. Employment Agreement dated April 1, 1986 between Joseph C. Levesque and us (incorporated by reference to Exhibit 10.6 to our Registration Statement on Form SB-2) (File No. 33-64962C).

#### (b) Reports on Form 8-K.

We did not file any Current Reports on Form 8-K during the fourth quarter of 2001.

#### FINANCIAL STATEMENTS AND NOTES THERETO

#### **Report of Independent Accountants**

To the Shareholders and Board of Directors of Aetrium Incorporated

In our opinion, the consolidated financial statements listed in the index appearing under Item 14(a)(1) present fairly, in all material respects, the financial position of Aetrium Incorporated and its subsidiaries ("the Company") at December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule appearing under Item 14(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements and financial schedule based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, 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.

/s/ PricewaterhouseCoopers LLP

Minneapolis, Minnesota February 1, 2002

# **AETRIUM INCORPORATED Consolidated Statements of Operations**

Year Ended December 31,		2001		2000	1	1999
Net sales	\$ 20	0,013,852	\$ 46	5,051,881	\$ 37,	188,312
Cost of goods sold	1.	3,032,316	23	3,395,023	23,	909,624
Gross profit	(	6,981,536	22	2,656,858	13,	278,688
Operating expenses:						
Selling, general and administrative	1	1,227,602	17	,473,987	17,	631,833
Research and development		4,694,477	8	3,530,804	9,	828,375
Unusual charges		2,202,630	4	1,075,536	1,	446,083
Total operating expenses	18	8,124,709	30	0,080,327	28,	906,291
Loss from operations	(1	1,143,173)	(7	7,423,469)	(15,	627,603)
Other income, net		247,864		428,917		607,497
Loss before income taxes and cumulative effect of a change						
in accounting principle	(1	0,895,309)	(6	5,994,552)	(15,	020,106)
Income tax benefit (provision)		226,000	(14	,710,000)	6,	007,000
Loss before cumulative effect of a change in accounting						
principle	(1	0,669,309)	(21	,704,552)	(9,	013,106)
Cumulative effect of a change in accounting principle —						
See Note 2.		_		(824,228)		
Net loss	\$(1	0,669,309)	\$ (22	2,528,780)	\$(9,	013,106)
Loss per common share (basic and diluted):						
Loss before cumulative effect of a change in accounting	ф	(1.12)	Ф	(2.20)	Ф	(0.05)
principle	\$	(1.13)	\$	(2.29)	\$	(0.95)
Cumulative effect of a change in accounting principle —				(0,00)		
See Note 2.				(0.09)		
Net loss	\$	(1.13)	\$	(2.38)	\$	(0.95)
Weighted average common shares outstanding		0.420.000	_		_	.=
(basic and diluted)		9,438,000	9	9,466,000	9.	470,000

# **AETRIUM INCORPORATED Consolidated Balance Sheets**

December 31,	2001	2000
ASSETS		_
Current assets:		
Cash and cash equivalents	\$7,180,576	\$ 9,132,132
Accounts receivable, net of allowance for doubtful		
accounts of \$395,000 and \$514,000, respectively	1,505,182	7,984,315
Refundable income taxes	_	345,329
Inventories	8,956,014	12,683,200
Other current assets	131,262	187,626
Total current assets	17,773,034	30,332,602
Property and equipment:		
Furniture and fixtures	597,628	1,159,362
Equipment	3,090,780	3,501,880
Less accumulated depreciation & amortization	(2,841,933)	(3,014,603)
Property and equipment, net	846,475	1,646,639
Intangible and other assets, net	10,766,919	12,394,605
Total assets	\$29,386,428	\$44,373,846
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Trade accounts payable	\$ 676,306	\$ 3,862,507
Accrued compensation	493,274	1,497,576
Other accrued liabilities	3,701,163	3,828,769
Total current liabilities	4,870,743	9,188,852
Commitments and contingencies		_
Shareholders' equity:		
Common stock, \$.001 par value; 30,000,000 shares		
authorized; 9,474,566 shares issued and outstanding	9,475	9,475
Additional paid-in capital	60,246,000	60,246,000
Accumulated deficit	(35,739,790)	(25,070,481)
Total shareholders' equity	24,515,685	35,184,994
Total liabilities and shareholders' equity	\$29,386,428	\$44,373,846

# **AETRIUM INCORPORATED**Consolidated Statements of Changes in Shareholders' Equity

				Retained Earnings	Total
	Common	Stock .	Additional	(Accumulated	Shareholders'
	Shares	Amount	Paid-in Capital	Deficit)	Equity
<b>Balance Dec. 31, 1998</b>	9,471,642	\$ 9,472	\$60,304,164	\$ 6,471,405	\$66,785,041
Exercise of stock options	69,192	69	481,033	_	481,102
Surrender of common stock in					
connection with exercise of stock					
options	(48,649)	(49)	(451,130)	_	(451,179)
Repurchase of common stock	(56,150)	(56)	(430,003)	_	(430,059)
Tax benefit related to exercise of					
stock options	_		58,353	_	58,353
Net loss	_	_	_	(9,013,106)	(9,013,106)
Balance Dec. 31, 1999	9,436,035	9,436	59,962,417	(2,541,701)	57,430,152
Exercise of stock options	39,864	40	286,336	_	286,376
Surrender of common stock in					
connection with exercise of stock					
options	(1,333)	(1)	(13,537)	_	(13,538)
Tax benefit related to exercise of					
stock options	_		10,784	_	10,784
Net loss	_	_	_	(22,528,780)	(22,528,780)
<b>Balance Dec. 31, 2000</b>	9,474,566	9,475	60,246,000	(25,070,481)	35,184,994
Purchase and sale of common					
shares pursuant to stock purchase					
and sale agreement					
(See Note 11):					
Purchase of common shares	(426,410)	(426)	(543,247)	_	(543,673)
Sale of common shares	426,410	426	543,247	_	543,673
Net loss				(10,669,309)	(10,669,309)
<b>Balance Dec. 31, 2001</b>	9,474,566	\$ 9,475	\$60,246,000	\$(35,739,790)	\$24,515,685

# **AETRIUM INCORPORATED Consolidated Statements of Cash Flows**

Year Ended December 31,	2001	2000	1999
Cash flows from operating activities:			_
Net loss	<b>\$(10,669,309)</b>	\$(22,528,780)	\$ (9,013,106)
Adjustments to reconcile net loss to net cash used in			
operating activities:			
Depreciation and amortization	2,186,643	2,624,316	3,331,906
Provision for excess and obsolete inventories	3,657,017	1,749,300	3,460,800
Provision for bad debts	_	_	57,000
Write-down of intangibles, equipment and leaseholds	214,793	1,180,899	1,155,000
Unusual charges	1,727,000	3,115,000	352,000
Cumulative effect of a change in accounting principle, net			
of taxes	_	824,228	_
Deferred taxes	_	15,362,059	(6,760,000)
Changes in assets and liabilities:			
Accounts receivable	6,479,133	(1,878,279)	(1,247,269)
Refundable income taxes	345,329	(345,329)	3,182,172
Inventories	70,169	(3,278,494)	1,196,685
Other current assets	56,364	45,402	128,152
Intangible and other assets	29,871	78,975	(23,315)
Trade accounts payable	(3,186,201)	1,946,070	1,195,076
Accrued compensation	(1,004,302)	(69,597)	21,620
Other accrued liabilities	(1,854,606)	(2,552,163)	(1,053,744)
Net cash used in operating activities	(1,948,099)	(3,726,393)	(4,017,023)
Cash flows from investing activities:			
Purchase of property and equipment	(70,798)	(598,599)	(531,349)
Proceeds from sale of equipment	67,341	_	
Net cash used in investing activities	(3,457)	(598,599)	(531,349)
Cash flows from financing activities:			
Net proceeds from sale of common stock	543,673	286,376	100,546
Repurchases of common stock	(543,673)	(13,538)	(500,682)
Net cash provided by (used in) financing			
activities	_	272,838	(400,136)
Decrease in cash and cash equivalents	(1,951,556)	(4,052,154)	(4,948,508)
Cash and cash equivalents at beginning of year	9,132,132	13,184,286	18,132,794
Cash and cash equivalents at end of year	\$ 7,180,576	\$ 9,132,132	\$ 13,184,286

#### **Notes to Consolidated Financial Statements**

#### **NOTE 1: BUSINESS DESCRIPTION**

Aetrium specializes in the design, development, manufacturing and marketing of a variety of electromechanical equipment used by the semiconductor industry to handle and test integrated circuits and other electronic components.

#### NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Basis of Presentation:** The consolidated financial statements include the accounts of Aetrium Incorporated and its wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

**Use of Estimates:** The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

**Reclassifications:** Certain prior-year amounts have been reclassified to conform to the current year presentation. Such reclassifications had no impact on previously reported net loss, shareholders' equity or cash flows.

**Cash Equivalents:** Cash equivalents include highly liquid investments purchased with an original maturity of less than three months.

**Inventories:** Inventories are valued at the lower of cost or market, with cost determined on a first-in, first-out basis.

**Property and Equipment:** Furniture, fixtures and equipment are recorded at cost and are depreciated using the double declining balance method over estimated useful lives ranging from three to seven years. When assets are retired or disposed of, the cost and accumulated depreciation are removed from the accounts. Maintenance and repairs are charged to expense as incurred.

**Intangible Assets:** Goodwill represents the excess of purchase price over the fair value of net assets of acquired businesses. Acquired intangible assets such as customer lists, trained workforces, developed technology, core technology, and patent rights are capitalized at their respective fair values, which are generally determined using discounted future cash flow techniques and assumptions appropriate to each situation, except for trained workforces, which are determined based upon estimates of replacement cost. Intangibles are amortized on a straight-line basis over their estimated useful lives as follows: Goodwill – 15 years, Customer Lists – 10 years, Trained Workforces – 7 years, Developed Technology – 2 to 8 years, Core Technology – 10 years, Patents – 7 years or legal life, if shorter.

During 2001, the Financial Accounting Standards Board ("FASB") issued new accounting standards related to goodwill and other intangible assets. Aetrium will adopt the new standards in 2002. See Note 3.

Valuation/Impairment of Long-Lived Assets: In accordance with Statement of Financial Accounting Standards ("SFAS") No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of," Aetrium reviews its intangible and other long-lived assets whenever an event or change in circumstances indicates that the carrying value of an asset may not be recoverable. If such an event or change in circumstances occurs and potential impairment is indicated because the carrying

#### **Notes to Consolidated Financial Statements**

values exceed the estimated future undiscounted cash flows, we would measure the impairment loss as the amount by which the carrying value of the asset exceeds its fair value.

During 2001, the FASB issued new accounting standards related to intangible and other long-lived assets, including SFAS 142 and SFAS 144 which address accounting for the impairment of goodwill and long-lived assets and supercede SFAS 121. Aetrium will adopt the new standards in 2002. See Note 3.

Revenue Recognition: Aetrium's policy is to recognize revenue on product sales upon shipment if contractual obligations have been substantially met and title and risk of loss have passed to the customer, which is generally the case for sales of spare parts, accessories, change kits and some equipment and equipment upgrade sales. Some equipment or equipment upgrade sales contracts, however, may include post-shipment obligations to be performed by Aetrium and/or contractual terms that can only be satisfied after shipment, such as installation and meeting customer-specified acceptance requirements at the customer's site. In these cases, revenue is not recognized until such obligations have been completed and there is objective evidence that the applicable contract terms have been met. In situations where equipment is shipped but revenue and the related receivable are not recognized, the cost of the equipment is included in inventories on our balance sheet. We often receive payments from customers prior to recognizing revenue. For example, we may receive partial payments prior to shipment, which we record as "Customer Deposits," or we may receive partial payments after shipment but prior to recognizing revenue, which we record as "Deferred Revenue." Customer Deposits and Deferred Revenue are recorded as liabilities and included in "Other accrued liabilities" in our consolidated balance sheet. See Notes 6 and 8.

Our revenue recognition policy described above reflects a change in policy that we implemented in 2000 for certain types of equipment sales. The accounting change was made in response to guidance provided in SEC Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" ("SAB101"), which was issued in final form in late 2000. SAB101 summarizes the SEC's views in applying generally accepted accounting principles to various revenue recognition issues, including issues related to equipment installation and customer acceptance. Prior to 2000, our policy was to recognize revenue for equipment sales upon shipment if title and risk of loss had passed to the customer, contractual obligations were substantially complete, post-delivery obligations were inconsequential, and customer acceptance and payment were reasonably assured. The assessment of whether customer acceptance and payment were reasonably assured was based on the nature of the acceptance criteria, our history of acceptance with the equipment and the individual customer, and the nature and cost of any remaining obligations necessary to obtain acceptance. In cases where these criteria were not met at the time of shipment, we deferred all of the revenue on the equipment sale until customer acceptance or payment was received.

As provided for in SAB101, the accounting change in 2000 was recorded as a change in accounting principle retroactive to January 1, 2000. The cumulative effect of the accounting change was an after-tax charge of \$824,228 (\$.09 per share), which included revenue of approximately \$3 million less cost of sales and certain related expenses such as commissions. Substantially all of the \$3 million in deferred revenue was recognized in 2000.

The following table presents the estimated consolidated results of our operations on an unaudited pro forma basis as if SAB101 had been effective in 1999 (in thousands, except per share data):

Unaudited pro forma	
Net sales	\$ 39,575
Net loss	(8,497)
Net loss per diluted share	(0.90)
Reported net loss per diluted share	\$ (0.95)

**Warranty Costs:** Estimated warranty costs are accrued in the period that the related revenue is recognized.

Research and Development: Research and development expenditures, which include software development costs, are expensed as incurred. SFAS No. 86, "Accounting for the Costs of Computer Software to Be Sold, Leased or Otherwise Marketed," requires the capitalization of certain software development costs once technological feasibility is established, which we define as the completion of a working model. To date, the period between achieving technological feasibility and the general availability of such software that is embedded in our equipment has been short and software development costs qualifying for capitalization have been insignificant. Accordingly, we have not capitalized any software development costs.

**Income Taxes:** Income taxes are accounted for in accordance with SFAS No. 109, "Accounting for Income Taxes." Deferred tax assets are recognized for deductible temporary differences and tax credit carryforwards and deferred tax liabilities are recognized for taxable temporary differences. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized, or the application of SFAS 109 does not permit management to conclude thereunder that it is more likely than not that some portion or all of the deferred tax assets will be realized.

**Net Income (Loss) Per Common Share:** Basic net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of common shares outstanding during each year. Diluted net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of common shares and potentially dilutive shares outstanding during each year. Potentially dilutive shares include stock options using the treasury stock method. Stock options are not included in the diluted loss per share calculations in fiscal years 1999, 2000 and 2001 because they are antidilutive. As of December 31, 2001, there were 1,124,000 outstanding stock options which could potentially impact diluted earnings per share. The number of weighted-average stock options outstanding using the treasury stock method that would have been included in the earnings per share calculation if we had been profitable in 2001 was insignificant.

**Repurchases of Common Stock:** Aetrium accounts for repurchased shares as retirements. The par value of repurchased shares is charged to the common stock account and the excess of the purchase cost over par value is charged to additional paid-in capital.

#### NOTE 3: RECENT ACCOUNTING PRONOUNCEMENTS

In June 2001, the FASB issued Statement of Financial Accounting Standards ("SFAS") No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS 141 eliminates the pooling-of-interests method of accounting for business combinations, requiring that all business combinations initiated after June 30, 2001 be accounted for using the purchase method. SFAS 142 provides that goodwill is no longer amortized, but rather is reviewed for impairment at least annually and more frequently in certain circumstances using a two step process. The first step is to identify a potential impairment and, in transition, this step must be measured as of the beginning of the fiscal year. However, a company has six months from the date of adoption to complete the first step. The second step of the goodwill impairment test measures the amount of the impairment loss (measured as of the beginning of the year of adoption), if any, and must be completed by the end of our fiscal year. Aetrium will adopt SFAS 142 effective January 1, 2002. We estimate that the elimination of goodwill amortization will result in a reduction in amortization expense of approximately \$200,000 per quarter beginning in the first quarter of 2002. We also anticipate that the methodology prescribed by SFAS 142 for evaluating and measuring the impairment of goodwill will result in a goodwill impairment charge of between \$6.0

#### **Notes to Consolidated Financial Statements**

million and \$8.0 million. Once determined, this charge will be reported as a change in accounting principle in the first quarter of 2002.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." This statement addresses financial accounting and reporting for the impairment of long-lived assets and for long-lived assets to be disposed of and supercedes SFAS 121. However, SFAS 144 retains the fundamental provisions of SFAS 121 for the recognition and measurement of the impairment of long-lived assets to be held and used and the measurement of long-lived assets to be disposed of by sale. We will adopt SFAS 144 effective January 1, 2002. We do not expect this statement to affect our financial position or results of operations.

Aetrium adopted SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" on January 1, 2001. This standard establishes accounting and reporting standards for derivative instruments and hedging activities. Since we do not hold derivative instruments or engage in hedging activities, the adoption of SFAS 133 did not have an impact on our financial statements.

#### **NOTE 4: UNUSUAL CHARGES**

#### Fiscal 2001

During 2001, Aetrium continued to be impacted by the downturn in the semiconductor equipment industry that began in late 2000. As a result, we took additional steps to improve operating efficiencies and reduce costs. During the year we completed the transfer of our operations in Poway, California to North St. Paul, Minnesota; we restructured our operations in Minnesota; we reduced our facility costs through the consolidation of operations; and we significantly reduced our workforce. Unusual charges recorded in 2001 related to these activities were as follows (dollars in thousands):

Restructuring charges	— severance costs	\$ 928
	— facility exit costs	<u>799</u>
Total restructuring cl	harges	1,727
Write-down of equipment and leaseholds		215
Moving expenses and other transition costs		261
Total unusual charge	S	\$2,203

During 2001, in response to declining revenue levels throughout the year, we implemented workforce reductions in March, April, June, and December. These workforce reductions included the elimination of 98 positions in manufacturing, sales, administration, and engineering. We recorded charges of \$928,000 for severance and related costs associated with these terminations. The charges were recorded in the periods when the restructuring plans were approved by management, severance benefits were determined, and the affected employees were notified.

In May 2001, we consolidated our North St. Paul, Minnesota operations from two buildings into one. One of the buildings, which is under lease through February 2006, was vacated prior to June 30, 2001. We recorded a facility exit charge of \$387,000 in the second quarter for estimated non-cancelable lease payments and other facility costs we expected to incur during the estimated time needed to find a sub-tenant. In the fourth quarter, due to our inability to locate a single sub-tenant to occupy the building, we changed our strategy to consider multiple sub-tenants. In November 2001, we subleased 7,500 square feet of the building to a third party for a two-year period. In January 2002, we subleased an additional 8,000 square feet to another party for a period ending concurrent with the master lease. We are continuing to market the remaining unused space in the building. As of December 31, 2001, we estimate that our net costs after sublease income to be

#### **Notes to Consolidated Financial Statements**

incurred over the remainder of the master lease will be approximately \$450,000. In the fourth quarter, we recorded an additional charge of \$219,000 to increase the accrual to that amount. Also, in connection with vacating this facility in the second quarter, we recorded a charge of \$215,000 related to abandoned leaseholds and losses on the sale of certain equipment during the quarter.

Aetrium leases a vacant facility in Grand Prairie, Texas that was utilized by our Grand Prairie operation until that business was transferred to our Dallas facility in the first quarter of 2000. The lease expires in June 2003. We continue to work with the owner of the building to locate a subtenant for the property. In 2001, due to our inability to locate a subtenant and due to softening economic conditions late in the year, we recorded an additional facility exit reserve of \$193,000 to cover the non-cancelable lease payments and other costs we estimate we will incur until a new tenant can be found.

In 2001, we incurred moving and other transition costs amounting to \$261,000 that were related to restructuring our operations. Of this amount, approximately \$203,000 was incurred in the first quarter primarily related to the relocation and other final costs associated with the transfer of operations from Poway, California to Minnesota and \$58,000 was related to moving expenses incurred in the second quarter when we combined our operations in Minnesota from two buildings into one.

The following table summarizes the severance and facility exit restructuring charges accrued and the associated activity for the year ended December 31, 2001 (dollars in thousands):

	Sev	erance		Facility		
	and B	enefits	Ex	it Costs		Total
Accrual balance, December 31, 2000	\$	491	\$	305	\$	796
Severance and related charges:						
Workforce reduction – first quarter		246		_		246
Workforce reduction – second quarter		317		_		317
Workforce reduction – fourth quarter		365		_		365
Facility exit charges:						
North St. Paul, MN facility - current year charge		_		606		606
Grand Prairie, TX facility –accrual increase				193		193
Cash payments	(1	1,015)		(400)	(1	,415)
Accrual balance, December 31, 2001	\$	404	\$	704	\$	1,108

We estimate that the accrued severance and facility exit costs at December 31, 2001 will be paid or utilized as follows: \$0.5 million by June 30, 2002; an additional \$0.3 million by December 31, 2002; approximately \$25,000 per quarter thereafter.

#### Fiscal 2000

During 2000, Aetrium initiated a number of activities to reduce costs and improve operating efficiencies. These actions included consolidating our two operations in Texas, closing our Lawrence, Massachusetts facility, and restructuring our operations in Poway, California. Unusual charges recorded in 2000 related to these activities were as follows (dollars in thousands):

### **Notes to Consolidated Financial Statements**

Restructuring charges	— severance costs	\$2,157
	— facility exit costs	<u>958</u>
Total restructuring	charges	3,115
Write-down of equipme	nt and leaseholds	495
Write-down of intangible assets		415
Other		51
Total unusual charg	ges	\$4,076

#### Consolidation of Texas Operations.

During the first quarter of 2000, we consolidated our two operations in Texas. Strategically significant manufacturing and development activities being conducted at our Grand Prairie facility were transferred to our Dallas facility where operations associated with the product line we acquired from WEB Technology, Inc. are located. The transfer was completed in mid-March 2000 and the Grand Prairie facility was closed in late March 2000.

Charges related to this restructuring included approximately \$565,000 for severance and related costs associated with the termination of 56 employees; \$385,000 for facility exit costs, including estimated non-cancelable lease payments and other facility costs we expected to incur during the estimated time needed to find a sub-tenant; \$121,000 related to the write-down of abandoned leaseholds and equipment; and \$186,000 related to the write-down of impaired intangibles, primarily capitalized trained workforces.

#### Closure of Lawrence, Massachusetts Facility.

During the first quarter of 2000, we decided to close our Lawrence, Massachusetts facility. The Thermal Forcing System product line and the development activities associated with our proprietary conductive thermal technology were transferred to our North St. Paul, Minnesota facility. We sold or licensed certain assets associated with the Lawrence operation, including the environmental test equipment product line. Consideration received for these assets was the transferee's assumption of certain future obligations related to the transferred product line and royalties on future sales. As indicated below, the transferee of the product line subsequently bought out the royalty contract later in the year. We ceased operations at our Lawrence facility in late March 2000 and the facility was vacated in May 2000.

Charges related to closing this facility included approximately \$844,000 for severance and related costs associated with the termination of 38 employees and \$101,000 for facility exit costs, including rent, taxes and other facility expenses we incurred during the six weeks from the time operations ceased until we moved out of the facility. In addition, we recorded charges in the first quarter of \$229,000 related to impaired intangibles associated with the transferred product line and \$672,000 for losses on the sale of the business assets and abandoned leaseholds. The charge related to the loss on the sale of the business assets was subsequently reduced by \$629,000 in the second half of 2000 for proceeds received from the royalty contract, resulting in a net charge of \$43,000. Because the transferee of the product line bought out the royalty contract, we will not receive royalty payments in the future under the contract.

#### Poway, California Restructuring.

In the second quarter of 2000, we announced that we would transfer manufacturing and certain administrative functions at our Poway, California facility to our North St. Paul, Minnesota

#### **Notes to Consolidated Financial Statements**

operation. Certain marketing and engineering activities were to remain in Poway. The restructuring plan included a workforce reduction, vacating a leased 45,000 square-foot building, and transferring the remaining marketing and engineering personnel to a 10,000 square-foot facility nearby. This action resulted in the elimination of 20 positions in manufacturing, engineering, accounting and administration. The lease for the 45,000 square-foot facility was subsequently assigned to a third party.

In October 2000, we announced our intention to transfer the remaining marketing and engineering operations in Poway to North St. Paul and to close the Poway facility. Prior to December 31, 2000, management had approved the restructuring plan that included the elimination of an additional 20 positions in engineering and administration and closing the facility by March 31, 2001. The affected employees were identified and notified of the terminations and related severance benefits prior to December 31, 2000. Some employees were terminated prior to December 31, 2000 with the remaining termination dates scheduled for March 31, 2001 or sooner. We subleased the 10,000 square-foot facility to a third party, effective April 1, 2001.

Charges related to the Poway restructuring during 2000 included approximately \$748,000 for severance and related costs, \$472,000 for facility exit costs, and \$331,000 related to the write-down of abandoned leaseholds and equipment. The severance costs were related to the elimination of a total of 40 positions. The facility exit costs were related to exiting both facilities and included noncancellable lease payments and other operating costs incurred after vacating as well as costs incurred to sublease the facilities.

The following table summarizes the severance and facility exit restructuring charges accrued and the associated activity for the year ended December 31, 2000 (dollars in thousands):

	Severance and	Facility	
	Benefits	Exit Costs	Total
Accrual balance, December 31, 1999	\$ —	\$ —	\$ —
Restructuring charges:			
Texas consolidation	565	385	950
Lawrence, MA	844	101	945
Poway, CA	748	472	1,220
Cash payments	(1,666)	(653)	(2,319)
Accrual balance, December 31, 2000	\$ 491	\$ 305	\$ 796

#### Fiscal 1999

In 1999, Aetrium recorded unusual charges as follows (dollars in thousands):

\$ 352
1,155
(61)
\$1,446

In order to reduce operating costs, we implemented two workforce reductions in 1999 which resulted in the termination of 48 employees. The restructuring charges were recorded in the periods when the affected employees were identified, severance benefits were determined, and the affected employees were notified and terminated. Accordingly, restructuring charges of \$190,000 and \$162,000 were recorded in the first and second quarters of 1999, respectively. The severance costs were paid prior to December 31, 1999.

#### **Notes to Consolidated Financial Statements**

When we acquired the handler equipment business of WEB Technology, Inc. in April 1998, WEB had a contractual relationship with a customer to develop and deliver certain automation equipment. A value of \$1.4 million was capitalized as an intangible asset related to this customer relationship at the time of the acquisition. In the fourth quarter of 1999, due to a change in its business environment and a shift in its strategic business plan, the customer requested that we discontinue working on the project. Prior to December 31, 1999, we negotiated a termination of the contract with the customer and determined that the project would not be resumed. As a result, we determined that the intangible asset related to this customer relationship was impaired and had no future economic value and the remaining unamortized balance of \$1.2 million was written off at December 31, 1999.

#### NOTE 5: SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION

Cash payments (refunds) for interest and income taxes were as follows:

Year Ended Dec. 31,	2001	2000	1999
Interest paid	\$ 11,214	\$ 18,771	\$ 13,884
Income taxes paid (refunded), net	\$(631,393)	\$(306,730)	\$(2,428,557)

During the years ended December 31, 2000 and 1999, employees surrendered shares of common stock in connection with the exercise of stock options as follows:

Year ended December 31,	2	2000	1999	9
Shares surrendered as	Number of	Market	Number of	Market
payment for:	Shares	Value	Shares	Value
Exercise prices	_	\$ —	41,996	\$380,556
Payroll taxes	1,333	13,538	6,653	70,623
Total shares surrendered	1,333	\$13,538	48,649	\$451,179

#### **NOTE 6: INVENTORIES**

A summary of the composition of inventories is as follows:

December 31,	2001	2000
Purchased parts and completed subassemblies	\$ 4,095,579	\$ 5,398,326
Work-in-process	2,479,694	3,466,368
Finished goods, including demonstration equipment and		
equipment shipped, subject to installation and/or customer acceptance	2,380,741	3,818,506
Total inventories	\$8,956,014	\$12,683,200

We recorded inventory excess and obsolescence charges amounting to \$3.7 million, \$1.7 million, and \$3.5 million in 2001, 2000, and 1999, respectively, which included unusual charges related to significant discrete circumstances as well as charges related to product design changes made in the ordinary course of our business.

In the fourth quarter of 2001, we recorded unusual inventory write-downs of \$2.7 million. As a result of the severe semiconductor industry downturn that began in late 2000 and continued throughout 2001 and the resulting excess capacity in the market segments served by some of our older test handler products, we wrote down the value of our inventories for these older products to their estimated net realizable values based upon a revised expectation of limited future sales of these products.

#### **Notes to Consolidated Financial Statements**

In 2000, we recorded unusual inventory write-downs totaling \$935,000. The write-downs were primarily related to inventories for DRAM test handler applications, a market segment that we decided not to pursue further. In the second quarter, we recorded an inventory write-down of \$450,000 related to our decision to discontinue marketing and manufacturing our oldest DRAM test handler, the model M3200. As a result of this decision, all inventories related to the production of the M3200 were written down to scrap value and were substantially disposed of by December 31, 2000. In the fourth quarter, we recorded an inventory charge of \$485,000. This charge was primarily related to our decision to discontinue marketing our DTX thermal test handler product to the DRAM market segment and rather focus the DTX on high power logic semiconductor applications. As a result of this decision, DTX-related inventories were evaluated and written down to estimated net realizable value.

In the second quarter of 1999, one of our largest customers, a DRAM manufacturer, announced that it was exiting the merchant market for DRAM devices and would buy minimal equipment in 1999. A second significant customer also indicated that its equipment requirements for DRAM applications would be significantly lower than previously forecasted levels. In response to these events and considering the potential obsolescence associated with upcoming transitions to new products, inventories were analyzed and we determined that a \$2.5 million unusual inventory charge was required to properly value inventories at net realizable value.

The unusual inventory write-downs in 2001, 2000 and 1999 were quantified through a detailed analysis of inventories with consideration given to potential future equipment and spares sales, and the potential use of common parts in other products.

In addition to the unusual inventory charges discussed above, we regularly record inventory charges due to the evolving nature of our products. Our products are continually improved and modified to better meet evolving market requirements. These product improvements and modifications regularly result in parts inventory obsolescence as parts are replaced due to the product changes. To address this recurring obsolescence, we recorded inventory charges of \$980,000 in 2001, \$814,000 in 2000 and \$961,000 in 1999, in addition to the unusual inventory charges discussed above.

#### NOTE 7: INTANGIBLE AND OTHER ASSETS

Intangible and other assets are comprised of the following:

December 31,	2001	2000
Goodwill	\$10,436,049	\$10,436,049
Customer lists	1,100,000	1,100,000
Trained workforces	123,162	123,162
Developed technology	2,600,000	2,600,000
Core technology	3,167,136	3,167,136
Other	155,496	185,367
Total	17,581,843	17,611,714
Accumulated amortization	(6,814,924)	(5,217,109)
Total intangible and other assets, net	\$10,766,919	\$12,394,605

As explained in Note 4, write-downs of intangible assets amounted to \$0.4 million and \$1.2 million in 2000 and 1999, respectively. Amortization expense related to intangibles amounted to \$1.6 million, \$1.6 million, and \$1.9 million in 2001, 2000, and 1999, respectively.

During 2001, the Financial Accounting Standards Board ("FASB") issued new accounting standards related to goodwill and other intangible assets, which we will adopt in 2002. See Note 3.

### NOTE 8: OTHER ACCRUED LIABILITIES:

Other accrued liabilities are comprised of the following:

December 31,	2001	2000
Accrued commissions	\$ 189,604	\$ 271,926
Accrued warranty	454,753	433,389
Customer deposits and deferred revenue	1,526,874	1,748,568
Accrued restructuring costs	1,108,128	795,733
Other	421,804	579,153
Total other accrued liabilities	\$3,701,163	\$3,828,769

#### NOTE 9: LONG-TERM DEBT AND CREDIT AGREEMENT

As of December 31, 2001, we had no outstanding long-term debt. We have a line of credit with a bank which provides for borrowings of up to the lesser of \$5,000,000, or 80% of eligible accounts receivable and 50% of eligible inventory. The line of credit is collateralized by receivables and inventories. There were no line of credit advances outstanding as of December 31, 2001 and 2000.

#### **NOTE 10: LEASE OBLIGATIONS**

Aetrium leases two adjacent buildings in North St. Paul, Minnesota from a partnership controlled by certain of our shareholders under two lease agreements, each of which expires in 2006. None of the shareholders in the partnership are directors or officers of Aetrium, or, to our knowledge, own more than five percent of our common stock. During 2001, we vacated one of the buildings in connection with a restructuring of operations. We have subleased approximately half of this building to two outside parties.

We also lease a building in Grand Prairie, Texas that was owned by a partnership controlled by a former officer and shareholder until it was sold in February 2001. The lease expires in June 2003. In January 2000, the officer's employment was terminated, and we vacated the building when the Grand Prairie operations were consolidated with our Dallas operation. At December 31, 2001, the Grand Prairie facility remained vacant and we are seeking a subtenant.

In 2000 we vacated a leased 45,000 square-foot facility in Poway, California when we relocated the operation to a 10,000 square-foot facility. The lease for the larger facility was assigned to a third party and we are contingently liable for the lease if the assignee defaults. The 10,000 square-foot facility was subleased on April 1, 2001.

Aetrium also leases certain equipment and a sales/service office under various operating leases. Rent expense under all operating leases was as follows:

Year Ended Dec. 31,	2001	2000	1999
Paid to shareholders	\$437,476	\$ 583,776	\$ 583,776
Paid to others	561,073	775,086	943,163
Sublease/assigned lease income	(163,668)	_	_
Total net rent expense	\$834,881	\$1,358,862	\$1,526,939

Future minimum annual lease payments under operating leases are as follows:

2002	\$ 974,000
2003	693,000
2004	437,000
2005	437,000
2006	55,000
Total minimum lease payments	\$2,596,000

The above minimum lease payments have not been reduced by minimum sublease rentals of \$0.6 million due in the future under noncancellable subleases.

The above minimum lease payments do not include the facility lease that has been assigned to a third party and on which we remain contingently liable. The lease expires in January 2010 and minimum remaining payments amount to \$4.1 million as of December 31, 2001.

#### NOTE 11: RELATED PARTY AND COMMON STOCK TRANSACTIONS

In November 2001, we repurchased 426,410 shares of our common stock from a group of shareholders that included certain employees of our Dallas operation and certain of their relatives in exchange for \$543,673 and an option to require this shareholder group to purchase 426,410 shares of our common stock for \$543,673, which we could exercise from December 31, 2001 to January 31, 2002. On December 31, 2001, we exercised our option to require the shareholder group to purchase 426,410 shares of our common stock. Terms of this transaction require us to file a registration statement covering these shares with the Securities and Exchange Commission and to maintain the effectiveness of the registration until December 31, 2002. We anticipate that the registration statement will be declared effective during the quarter ended June 30, 2002.

In connection with the April 1998 acquisition of the handler equipment business of WEB Technology, Inc., we entered into agreements with certain WEB shareholders whereby we received a right of first refusal on shares of our common stock issued to such shareholders. In 1999, we repurchased 56,150 shares for \$430,059 pursuant to these agreements.

#### **NOTE 12: STOCK OPTIONS**

In 1993, Aetrium's shareholders approved the adoption of the 1993 Stock Incentive Plan. Employees, officers, directors, consultants and independent contractors providing services to us are eligible to receive awards under our stock incentive plan. The number of shares available for issuance under our stock incentive plan is equal to 17.5% of the aggregate number of shares of common stock outstanding less the total number of shares of common stock issuable upon the exercise or conversion of any stock options, warrants or other stock rights. Our stock incentive plan is administered by the Compensation Committee of our Board of Directors and provides for the granting of: (a) stock options; (b) stock appreciation rights; (c) restricted stock; (d) performance awards; and (e) stock awards valued in whole or in part by reference to or otherwise based upon our stock. Options granted under our stock incentive plan may be incentive stock options or nonqualified stock options. Our stock incentive plan provides that the Compensation Committee may, at its discretion, allow the exercise price of stock options to be paid, in whole or in part, by tendering previously acquired shares that have been held by the option holder for at least six months. Our stock incentive plan will terminate on June 8, 2003.

The following table summarizes activity under our stock incentive plan:

		Outstanding Options			
	Number	Range of	Weighted Average		
	of Shares	Exercise Prices	Exercise Price		
Balance, December 31, 1998	1,446,064	\$5.63 to 18.81	\$8.15		
Options granted	178,500	5.88 to 7.08	6.59		
Options exercised	(69,192)	6.63 to 8.34	6.96		
Options forfeited	(84,536)	5.63 to 16.63	8.25		
Balance, December 31, 1999	1,470,836	5.63 to 18.81	8.01		
Options granted	356,500	5.69 to 6.54	5.81		
Options exercised	(39,864)	5.63 to 10.25	7.18		
Options forfeited	(258,055)	5.63 to 10.25	6.95		
Balance, December 31, 2000	1,529,417	5.63 to 18.81	7.70		
Options granted	332,000	1.69	1.69		
Options forfeited	(737,417)	1.69 to 18.81	9.25		
Balance, December 31, 2001	1,124,000	\$1.69 to 7.08	\$4.91		
Options exercisable as of		_			
December 31, 2001	695,153	\$1.69 to 7.08	\$4.85		

The following table summarizes information related to stock options outstanding at December 31, 2001, all of which are nonqualified options and expire five years after the grant date and of which 206,175 options were fully exercisable when granted and 917,825 options become exercisable over a four to five-year period:

Options Outstanding		Options I	Exercisable		
		Weighted			
Range of	Number	Average	Weighted	Number	Weighted
Exercise	Outstanding	Remaining	Average	Exercisable	Average
Prices	at 12/31/01	Contractual Life	Exercise Price	at 12/31/01	Exercise Price
\$1.69	329,375	4.4 years	\$1.69	221,903	\$1.69
5.63 to 7.08	794,625	2.5 years	6.25	473,250	6.33
\$1.69 to 7.08	1,124,000	3.1 years	\$4.91	695,153	\$4.85

As permitted by Statement of Financial Accounting Standards ("SFAS") No. 123, "Accounting for Stock-Based Compensation," we apply APB Opinion No. 25 and related interpretations in accounting for options granted to employees and directors under our stock incentive plan. Accordingly, no compensation expense has been recorded for options granted under our stock incentive plan, as the exercise price has been equal to the market price of the underlying stock on the dates of grant. If we had elected to recognize compensation expense based on the fair value of the options at the grant date as prescribed by SFAS 123, net loss and net loss per share would have been as reflected in the pro forma amounts indicated below (in thousands, except per share amounts):

Year Ended Dec. 31,	2001	2000	1999
Net loss:			
As reported	<b>\$(10,669)</b>	\$(22,529)	\$(9,013)
Pro forma	\$(11,371)	\$(22,968)	\$(9,938)
Net loss per basic and diluted share:			
As reported	<b>\$</b> (1.13)	\$ (2.38)	\$ (0.95)
Pro forma	<b>\$</b> (1.20)	\$ (2.43)	\$ (1.05)

#### **Notes to Consolidated Financial Statements**

The weighted-average fair value per option at the date of grant for options granted in 2001, 2000, and 1999 was \$0.81, \$2.62, and \$2.76 respectively. The fair value of options was estimated using the Black-Scholes option-pricing model with the following assumptions:

	2001	2000	1999
Expected dividend level	0%	0%	0%
Expected stock price volatility	63%	54%	50%
Risk-free interest rate	4.0%	5.9%	5.5%
Expected life of options (years)	3.5	3.5	3.5

During the years ended December 31, 2000 and 1999, in connection with certain stock option exercises, employees surrendered 1,333 (\$13,538 fair market value) and 48,649 (\$451,179 fair market value) shares, respectively, of common stock as payment for the exercise prices of such options and related withholding tax obligations.

Aetrium recorded a tax benefit of \$10,784 and \$58,353 for the years ended December 31, 2000 and 1999, respectively, related to the exercise of nonqualified stock options, which amounts were credited to Additional Paid-in Capital.

#### NOTE 13: EMPLOYEE SAVINGS 401(k) AND STOCK PURCHASE PLANS

Aetrium has a 401(k) employee savings plan, which covers full-time employees who are at least 21 years of age. Our contributions to our savings plan, which are at the discretion of management, amounted to \$108,893, \$140,907, and \$231,377 in 2001, 2000 and 1999, respectively.

Aetrium also has a nonqualified employee stock purchase plan. Full-time eligible employees may purchase shares of common stock by contributing to our stock purchase plan through payroll deductions. Employee contributions to our stock purchase plan are limited to 10% of each employee's base compensation. Our stock purchase plan purchases shares on the open market at fair market value. At management's discretion, we may choose to contribute to our stock purchase plan. We contributed \$4,984, \$12,983, and \$18,921 to our stock purchase plan in 2001, 2000 and 1999, respectively.

#### **NOTE 14: INCOME TAXES**

The provision (benefit) for income taxes is made up of the following components:

Year Ended December 31,	2001	2000	1999
Current tax provision (benefit):			
Federal	\$(226,000)	\$ —	\$ 711,000
State	_	_	42,000
Total current provision (benefit)	(226,000)	_	753,000
Deferred tax provision (benefit):			
Federal	_	14,408,000	(6,384,000)
State	_	302,000	(376,000)
Total deferred provision (benefit)	_	14,710,000	(6,760,000)
Total provision (benefit) for income taxes	\$(226,000)	\$14,710,000	\$(6,007,000)

The cumulative effect of a change in accounting principle included in the 2000 consolidated statement of operations is net of a \$550,000 deferred tax benefit which is not included in the table above.

An analysis of the effective tax rate on earnings and a reconciliation from the expected statutory rate are as follows:

Year Ended December 31,	2001	2000	1999
Loss before income taxes	\$(10,895,313)	\$(6,994,552)	\$(15,020,106)
Statutory federal tax rate	34%	34%	34%
Tax benefit computed at federal			
statutory rate	\$ (3,704,406)	\$(2,378,148)	\$ (5,106,836)
State taxes, net of federal benefit	(273,170)	(71,624)	(220,440)
Increase (decrease) in tax from:			
Goodwill amortization	19,369	19,369	19,369
Foreign sales corporation benefit	(23,800)	(56,100)	(93,626)
Tax-exempt interest income	(9,915)	_	(33,154)
Business meals and entertainment	22,780	40,120	38,544
Tax credits	(284,429)	(147,000)	(456,000)
Valuation allowance change	4,113,125	17,337,685	_
Other, net	(85,554)	(34,302)	(154,857)
Provision (benefit) for income taxes	\$ (226,000)	\$14,710,000	\$ (6,007,000)

Deferred tax assets (liabilities) are comprised of the following:

December 31,	2001	2000	1999
Accounts receivable, principally due to allowances for doubtful accounts Inventories, principally due to reserves	\$ 134,106	\$ 157,764	\$ 159,410
for excess and obsolete inventories and additional costs inventoried for tax purposes pursuant to the Tax Reform Act of 1986	1,482,914	898,365	1,271,503
Employee compensation and benefits accrued for financial reporting			
purposes	74,552	137,280	105,825
Amortization of intangibles	6,109,908	6,257,183	6,635,959
Tax credits and NOL carryforwards	13,707,360	10,286,837	6,309,244
Restructuring reserves	303,664	260,349	_
Other, net	188,306	(110,093)	319,808
Deferred tax asset — gross	\$ 22,000,810	\$ 17,887,685	\$ 14,801,749
Less, valuation allowance	(22,000,810)	(17,887,685)	· · ·
Net deferred tax asset	\$ —	\$ —	\$ 14,801,749

Aetrium has Federal net operating loss carryforwards of approximately \$34 million that will begin to expire in 2020 if not utilized. We also have state net operating loss carryforwards of approximately \$14 million that will expire at various times, beginning in fiscal year 2003, if not utilized.

In fiscal 2000, in accordance with Statement of Financial Accounting Standards No. 109, due to recent operating losses, reduced sales order activity in late 2000, and softening industry conditions in early 2001, we recorded a valuation allowance against our deferred tax assets. The valuation allowance was \$22.0 million and \$17.9 million at December 31, 2001 and 2000, respectively. We do not expect to record any tax expense or benefit in the future until we are consistently profitable on a quarterly basis.

#### **Notes to Consolidated Financial Statements**

# NOTE 15: BUSINESS SEGMENT, GEOGRAPHIC AND SIGNIFICANT CUSTOMER INFORMATION, AND CONCENTRATION OF CREDIT RISK

We view our operations and manage our business as one segment, supplying electromechanical equipment to the semiconductor industry. Factors used to identify our single operating segment include our organizational structure and the financial information used by our executive management in making decisions about how to allocate resources and assess performance. The following table sets forth the various components of net sales by product line as a percentage of total sales:

Year Ended December 31,	2001	2000	1999
Test handlers	53%	52%	46%
IC automation products	16	22	26
Reliability and environmental test products	18	13	12
Change kits and spare parts	13	13	16
Total	100%	100%	100%

Foreign sales from the United States were as follows:

Year Ended December 31,	2001	2000	1999
Asia	\$4,275,000	\$12,253,000	\$11,445,000
Europe	1,282,000	1,701,000	1,916,000
Other	1,757,000	988,000	2,052,000
Total	\$7,314,000	\$14,942,000	\$15,413,000

Sales to a single customer represented 22.6% and 10.2% of total net sales in 2001 and 2000, respectively. Sales to a second customer represented 13.8% and 14.4% of total net sales in 2000 and 1999, respectively. Sales to a third customer represented 10.7% of total net sales in 1999.

We sell our products principally to manufacturers of integrated circuits, other electronic components, and semiconductor equipment. Our accounts receivable balance is concentrated with customers principally in one industry; however, we regularly monitor the creditworthiness of our customers and credit losses have historically been minimal.

#### **SIGNATURES**

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

#### **AETRIUM INCORPORATED**

Date: April 1, 2002 By: /s/ Joseph C. Levesque

Joseph C. Levesque

Chief Executive Officer and President

(principal executive officer)

By: /s/ Paul H. Askegaard

Paul H. Askegaard

Treasurer

(principal financial and accounting officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on April 1, 2002 by the following persons on behalf of the registrant and in the capacities indicated.

<u>Signature</u> <u>Title</u>

/s/ Joseph C. Levesque Chairman of the Board

Joseph C. Levesque

/s/ Darnell L. Boehm Director

Darnell L. Boehm

/s/ Terrence W. Glarner Director

Terrence W. Glarner

/s/ Andrew J. Greenshields Director

Andrew J. Greenshields

/s/ Douglas L. Hemer Director

Douglas L. Hemer

### AETRIUM INCORPORATED EXHIBIT INDEX TO ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2001

Item No.	Item	Method of Filing
3.1	Our Restated Articles of Incorporation, as amended.	Incorporated by reference to Exhibit 3.1 to our Registration Statement on Form SB-2 (File No. 33-64962C).
3.2	Amendment to Restated Articles of Incorporation	Incorporated by reference to Exhibit 3.2 to our Quarterly Report for the quarter ended September 30, 1998 (File No. 0-22166).
3.3	Our Bylaws, as amended.	Incorporated by reference to Exhibit 3.2 to our Registration Statement on Form SB-2 (File No. 33-64962C).
4.1	Specimen Form of our Common Stock Certificate.	Incorporated by reference to Exhibit 4.1 to our Registration Statement on Form SB-2 (File No. 33-64962C).
10.1	1993 Stock Incentive Plan, as amended.	Incorporated by reference to Exhibit 10.2 to our Annual Report on Form 10-K for year ended December 31, 1997 (File No. 0-22166).
10.2	Salary Savings Plan.	Incorporated by reference to Exhibit 10.3 to our Registration Statement on Form SB-2 (File No. 33-64962C).
10.3	Form of Incentive Stock Option Agreement.	Incorporated by reference to Exhibit 10.6 to our Annual Report on Form 10-KSB for the year ended December 31, 1993 (File No. 0-22166).
10.4	Form of Non-Statutory Option Agreement.	Incorporated by reference to Exhibit 10.7 to our Annual Report on Form 10-KSB for the year ended December 31, 1993 (File No. 0-22166).
10.5	Employment Agreement dated April 1, 1986, between Joseph C. Levesque and us.	Incorporated by reference to Exhibit 10.6 to our Registration Statement on Form SB-2 (File No. 33-64962C).
10.6	Credit Agreement dated August 11, 1989, between Harris Bank and us.	Incorporated by reference to Exhibit 10.7 to our Registration Statement on Form SB-2 (File No. 33-64962C).
10.7	Lease Agreement, dated July 19, 1995, between KAMKO Investments and us.	Incorporated by reference to Exhibit 10.12 to our Registration Statement on Form SB-2 (File No. 33-98040).

10.8	Amendment to Lease Agreement, dated September 26, 1995, between KAMKO Investments and us.	Incorporated by reference to Exhibit 10.13 to our Registration Statement on Form SB-2 (File No. 33-98040).
10.9	Employee Stock Purchase Plan.	Incorporated by reference to Exhibit 99.1 to our Registration Statement on Form S-8 (File No. 33-74616).
10.10	Indenture dated June 25, 1998 between KAMKO Investments and the company.	Incorporated by reference to Exhibit 10.19 to our Annual Report on Form 10-K for the year ended December 31, 1998 (File No. 0-22166).
10.11	Standard Industrial/Commercial Single-Tenan Lease, dated September 18, 1998, between W.H. Pomerado, LLC and us, including addendum and material exhibits to lease.	Annual Report on Form 10-K for the year ended December 31, 1999 (File No. 0-22166).
10.12	Standard Lease Agreement, dated December 19, 1987, between Crow-Markison 22-27, Limited Partnership and WEB Technology, Inc., including all supplements and amendments thereto.	Incorporated by reference to Exhibit 10.17 to our Annual Report on Form 10-K for the year ended December 31, 1999 (File No. 0-22166).
10.13	Assignment and Assumption of Lease Agreement, dated August 8, 2000, by and between us and Littlefeet, Inc.	Incorporated by reference to Exhibit 10.16 to our Annual Report on Form 10-K for the year ended December 31, 2000 (File No. 0-22166).
10.14	Bill of Sale, Assignment and Assumption and Lease Agreement, dated March 31, 2000, by and between Aetrium-EJ Inc. and Daniel Gamelin and Mark Woodman.	Incorporated by reference to Exhibit 10.16 to our Annual Report on Form 10-K for the year ended December 31, 2000 (File No. 0-22166).
10.15	Assignment, dated August 31, 2000, by and between Aetrium-EJ Inc. and Daniel Gamelin and Mark Woodman.	Incorporated by reference to Exhibit 10.16 to our Annual Report on Form 10-K for the year ended December 31, 2000 (File No. 0-22166).
10.16	Agreement, dated November 30, 2001, by and among Aetrium and certain shareholders.	Filed herewith electronically.
21.1	Subsidiaries of the Registrant.	Incorporated by reference to Exhibit 21.1 to our Annual Report on Form 10-K for the year ended December 31, 1997 (File No. 0-22166).
23.1	Independent Accountants' Consent.	Filed herewith electronically.