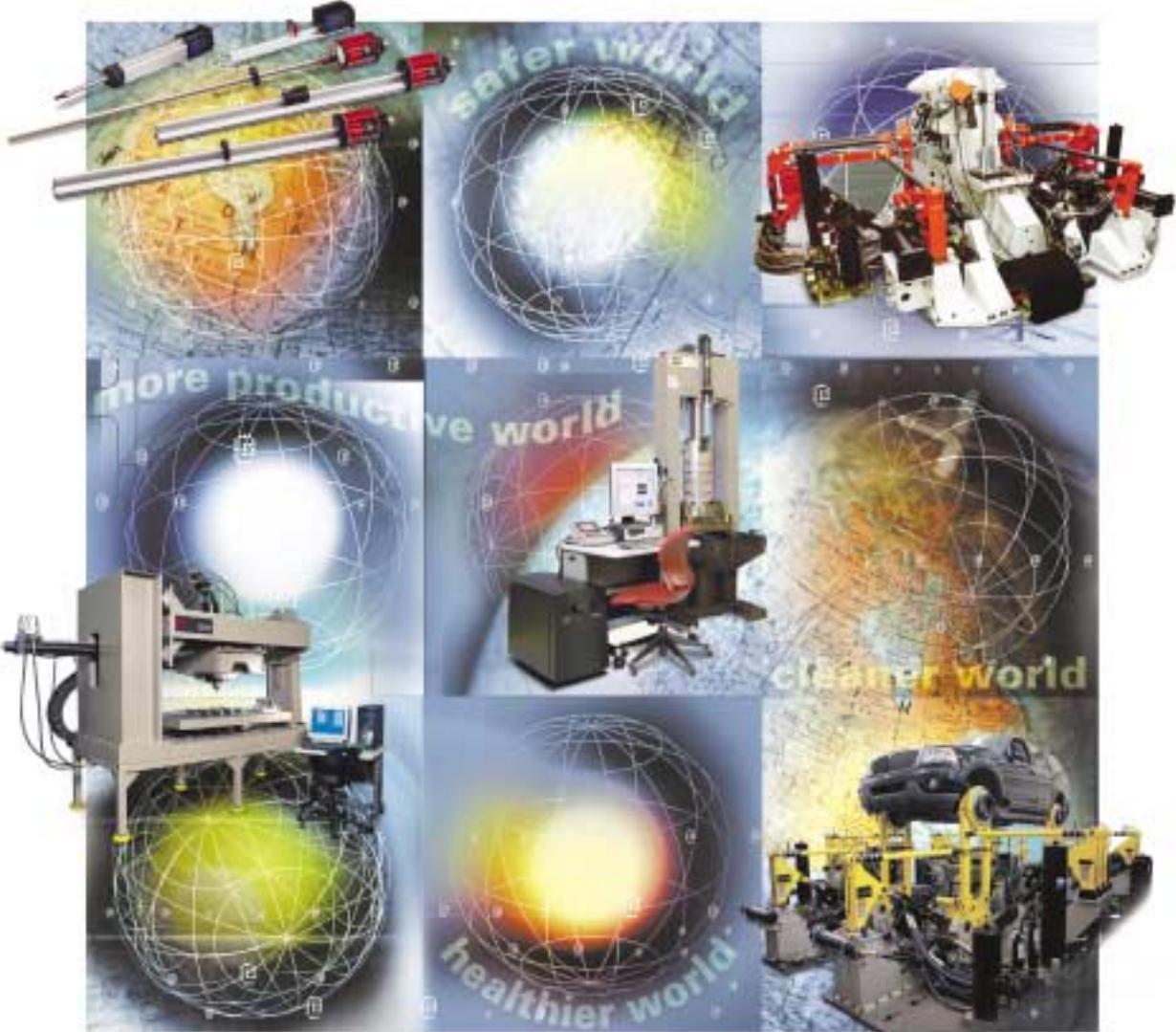


# Engineering a Better World

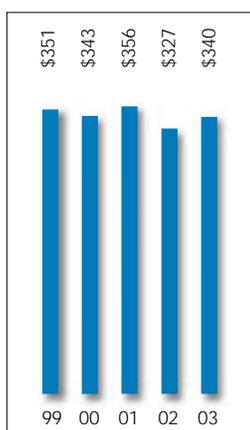


# About MTS

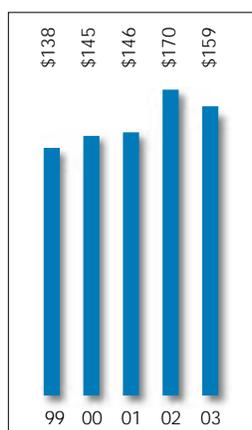
MTS Systems Corporation is a global supplier of testing products that help customers accelerate and improve their design, development and manufacturing processes. MTS products are used for determining the mechanical behavior of materials,

products and structures and include computer-based testing and simulation systems, modeling and testing software, and consulting services. The company also is a leading manufacturer of industrial position sensors.

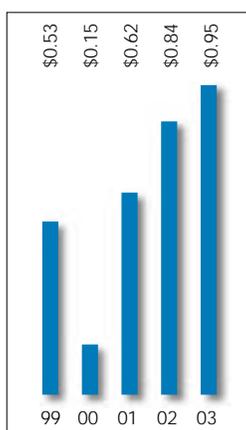
## Financial Highlights



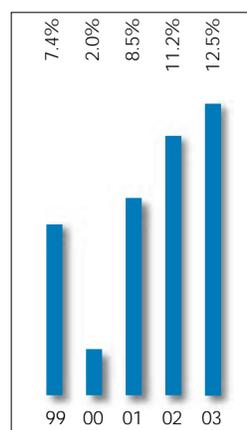
Revenue  
\$ Million



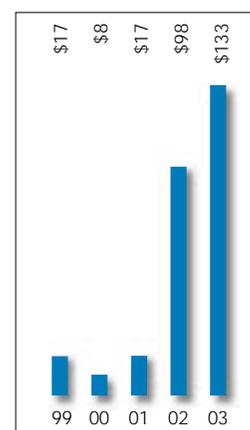
Backlog of Orders  
\$ Million



Earnings per Share, diluted,  
before cumulative effect of  
accounting changes<sup>(1)</sup>



Return on Equity<sup>(1)</sup>  
Percent



Cash, Cash Equivalents and  
Short-Term Investments  
\$ Million

	2002	2003
<i>(Expressed in thousands except per share data)</i>		
Revenue	\$ 327,185	\$ 340,087
Income before cumulative effect of accounting changes <sup>(1)</sup>	\$ 18,003	\$ 20,313
Net income	\$ 4,282	\$ 20,313
Earnings per share, diluted, before cumulative effect of accounting changes <sup>(1)</sup>	\$ 0.84	\$ 0.95
Cash flow from operations	\$ 84,340	\$ 55,342
Return on sales <sup>(1)</sup>	5.5%	6.0%
Return on equity <sup>(1)</sup>	11.2%	12.5%
Dividends per share	\$ 0.24	\$ 0.24
Shareholders' investment per ending share outstanding <sup>(2)</sup>	\$ 7.65	\$ 8.50
Weighted average shares outstanding, diluted (000's)	21,433	21,474
New orders	\$ 351,583	\$ 324,237
Backlog of orders at year-end	\$ 169,993	\$ 159,252

<sup>(1)</sup> See item 6 "Selected Financial Data" in the enclosed Form 10-K for information on this non-GAAP measure.

<sup>(2)</sup> Ending shareholders' investment divided by shares outstanding at year-end.

## Our Mission

We are a technology-based, market-driven company providing hardware, software and engineering services to researchers, designers and manufacturers.

Our mission is to help our customers design, develop and produce their products faster, with higher quality and at a lower cost.

# To Our Shareholders

In 2003, MTS' superior engineering and solid business discipline combined to generate a significant increase in shareholder value, proving the merits of our strong fundamentals and our ability to engineer a better world. Our leadership position in the worldwide test and industrial sensing industries, coupled with our emphasis on reducing costs and improving working capital efficiency, resulted in year-over-year growth in earnings; cash, cash equivalents and short-term investments; return on equity; and market position. This performance helped shareholders experience a 50 percent increase in share price over the fiscal year in addition to dividend payments.

Our ability to provide stable, predictable and increasingly profitable results despite a slowdown in orders reflects our continued efforts to focus on what we do best — the precise control of motion and forces. In addition, we strengthened our future prospects in 2003 through a series of carefully planned strategic moves:

- ▶ In the Test segment, we reinforced the strategy of leveraging profit from our core business by rationalizing our organization and aggressively eliminating costs. In addition, we significantly enhanced our understanding of how testing software (virtual testing) can increase the speed and usefulness of physical testing, which led to the recent announcements of new safety and structural dynamics software products.
- ▶ In the Industrial segment, we divested the motor and amplifier businesses — formerly the Automation Division — as we determined our product portfolio and niche market position made it difficult to meet our internal profit objectives. At the same time, we added to market share and profit margins in our historically strong magnetostrictive sensing business.

Moving forward, we see a prosperous future doing what we have done for 37 years — helping customers more quickly and cost-effectively engineer better products and getting paid for the value we provide.

## *Financial Overview*

For the year, orders declined 8 percent to \$324 million, reflecting the low rate of capital spending in North America, the war in Iraq and the SARS scare in Asia. Our geographic diversity partially offset the effects of these events. While North American orders declined 16 percent and Asian orders declined 19 percent, European orders increased 8 percent. Revenues increased by 4 percent to \$340 million, the result of a proportionally stronger short-cycle business. While revenue mix and

pricing pressure lowered gross margins by one point, income before the cumulative effect of accounting changes increased by 13 percent to \$20.3 million, or \$0.95 per diluted share, through tight cost controls, the sale of the unprofitable Automation Division at mid-year and reduced interest expense.

We generated \$55 million in cash from operations during the year by continuing to reduce receivables and inventory and negotiating more favorable contract terms. As a result, we reduced debt by \$15 million and increased cash, cash equivalents and short-term investments by \$35 million to \$133 million at year-end. During the year, we also repurchased approximately 1.3 million shares of MTS stock, offsetting new shares issued as a result of stock option exercises. In 2004, we expect to use our strong cash position to repurchase additional stock and complete strategic acquisitions to expand our testing software offerings.

## *Test Segment*

In 2003, we renamed the Mechanical Testing and Simulation segment to Test to reflect a renewed focus on our core business of designing, producing, installing and servicing test hardware and software solutions. Orders in this segment were down 11 percent to \$275 million, while we increased revenue by 2 percent to \$292 million. Income from operations of \$29 million was flat versus fiscal 2002, as reduced operating expenses were offset by slightly lower gross margins.

In the physical testing realm which comprises the bulk of this segment, there was continued evidence of a mature market, including slow growth due to the current recession; few new competitive entrants; a persistent shift of decision-making authority from the end user toward the procurement function (including occasional Internet auctions for large test rigs); and aggressive price competition.

In response to this environment, we made a deliberate decision to more aggressively lower our costs, building on our progress over the past several years. Thus, at year-end, we announced the consolidation of our physical test equipment business units into a single division. This division and the software division now comprise the Test segment. Additionally, we increased our emphasis on designing more cost-effective products and initiated steps to strengthen our marketing resources.

The Test segment is committed to getting products to market faster with the right combination of cost and features. By doing so, we expect to gain share in our traditional markets

without lowering our margins. We must become the most cost-effective supplier for the wide range of testing hardware and software needs of our customers, while retaining MTS' position as the premier advanced technology provider for those customers who value that capability.

*Industrial Segment*

We renamed our Factory Automation segment to Industrial in 2003 to reflect the divestiture of our motor and amplifier business, as well as a shift away from automation and toward enhancing the productivity of industrial equipment with magnetostrictive sensors. This segment also includes our laser additive manufacturing venture, AeroMet.

Orders for this segment increased 14 percent to \$50 million. Revenue grew 20 percent to \$48 million in this segment, and income from operations increased from \$2.2 million to \$4.0 million.

The magnetostrictive sensor business experienced 16 percent growth in orders, due in large part to improved market conditions worldwide. Growth in orders in Japan validated the strategy of establishing a local assembly operation there several years ago. During the year, we introduced new sensor products targeted at mobile hydraulic applications and received multiple orders for evaluation and initial production runs on a number of agricultural and construction vehicles in both North America and Europe. We expect double-digit order growth to continue in this emerging market for the foreseeable future. In addition, new sensor applications for operating room equipment provided growth from the medical instruments market.

Our AeroMet subsidiary delivered its first flight-worthy parts — pylon ribs for F-15 fighter aircraft. The U.S. government continued its support for this innovative technology with additional funding of \$3.6 million. Through rigorous customer testing, AeroMet has proven the technical viability of laser-formed titanium for the demanding world of aircraft components and achieved breakeven operating results. However, a combination of entrenched competition, a conservative customer environment and the low number of new aircraft projects has reduced our near-term revenue growth expectations. AeroMet is transitioning from a technology start-up to a viable commercial production business and we remain confident in its long-term success.

*Customer Highlights*

Across a variety of markets, MTS helps customers engineer better products. For example, in 2003 MTS delivered the world's first dynamic kinematics test system to help Mazda vehicles ride better. We completed an advanced crash simulator to make Volvo cars even safer; installed an environmental test system to enhance the durability of the newest BMW roadsters; and delivered the latest aerospace testing technology to enhance the damage tolerance of Joint Strike Fighter components. We also won an advanced powertrain testing contract to make Honda Racing's Indy cars faster.

MTS' material test equipment helps Dupont design stronger plastics and ALCAN develop more durable aluminum foil. We're developing a rolling road system to make an Audi more comfortable. We help the U.S. government make buildings more resilient and, therefore, safer from terrorist attacks with novel blast simulation equipment. MTS' Nano Indenter® system helps Kodak film materials get to market faster. MTS' sensors help Stryker make operating room environments cleaner and Claas harvesters more productive.

Engineering a better world is our business.

In 2003, we demonstrated our capability to continuously deliver shareholder value in a difficult market environment. By remaining focused on our core markets, values and competencies, we continue to not only help engineer a better world but also a better company.



Sidney W. Emery, Jr.  
Chairman and  
Chief Executive Officer

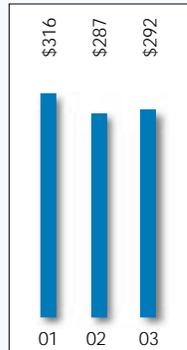
# MTS at a Glance

## Test

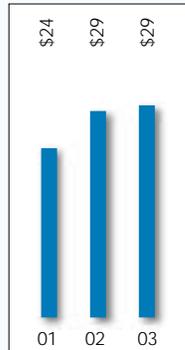
**Test segment** provides integrated testing equipment, software, consulting and services that help customers enhance and accelerate product design, development and manufacturing processes.



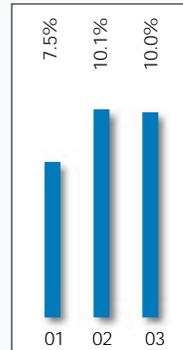
Orders  
\$ Million



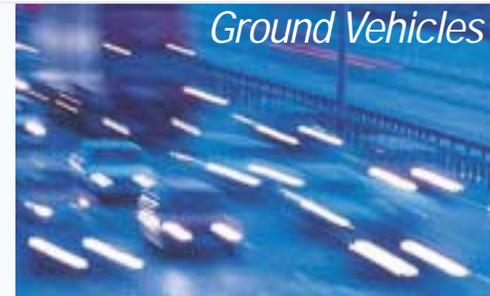
Revenue  
\$ Million



Income from Operations  
\$ Million



Percent of Revenue  
Percent



Ground Vehicles



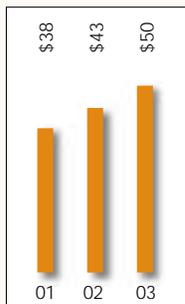
Aerospace



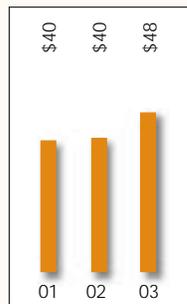
Infrastructure

## Industrial

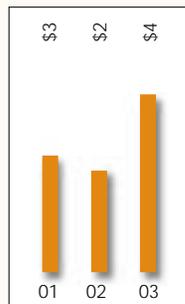
**Industrial segment** provides component solutions, such as position sensors, that automate machines and machine tools.



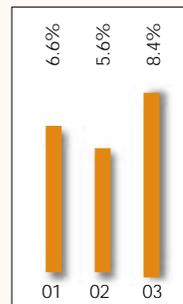
Orders  
\$ Million



Revenue  
\$ Million



Income from Operations  
\$ Million



Percent of Revenue  
Percent



Sensors



Tom Buckley

Service Operations  
MTS



## Engineering a Safer World

*"When you live in Minnesota, you think and talk a lot about the weather, particularly snow, sleet and hail. And you think about these things when selecting a vehicle. My family chose the new Mazda 6 with its safety attributes, such as handling performance and excellent occupant protection, knowing it was subjected to rigorous tests conducted on MTS Test equipment."*



Dave T.

Applicat  
MTS



## Customer Need

- Reduced product development time
- Reduced product development cost
- Increased product functionality
- Reduced warranty cost

- Reduced product development time
- Reduced product development cost
- Low total cost of ownership
- Reduced product liability

- Reduced product development cost
- Increased product performance
- Increased product life
- Advanced material research tools

- Increased equipment productivity
- Reduced equipment downtime
- Increased operator safety and effectiveness

- Reduced product development time
- Reduced production cycle time
- Reduced manufacturing cost
- Fast engineering design changes

## Business Description

MTS provides automated test systems, analysis software and specialized consulting services that accelerate product development and enhance the quality, durability, performance and safety of ground vehicles (passenger cars, trucks, heavy trucks, motorcycles, construction, agricultural, and recreational vehicles) and their components.

MTS provides automated testing systems, software and support to all phases of aerospace structural design, certification and manufacturing.

MTS provides researchers with testing hardware and software solutions for evaluating the mechanical properties, strength and durability of materials, structures and products.

MTS provides magnetostrictive sensors that measure position and velocity.

MTS AeroMet subsidiary produces high-quality titanium aircraft parts using the laser additive manufacturing process.

## MTS Competitive Advantages

- Breadth of product offerings
- Worldwide application and service support
- Advanced technology customized solutions
- Application expertise

- Breadth of force, control and data acquisition product offerings
- Advanced technology customized solutions
- Application expertise
- Worldwide application and service support

- Breadth of testing equipment capability - from one nano-newton to more than 50 mega-newtons
- Breadth of application expertise
- Customized research testing solutions

- Rugged, high-performance sensor product line
- Speed of new application development
- Integrated sensor solution capability
- Customer's total cost of ownership

- Speed to market
- Reduced material costs

thurston

sions Engineer



## Engineering a Cleaner World

*"At the General Motors Research & Development Technical Center, creating environmentally friendly vehicles is a high priority. MTS test equipment is an important piece of this equation – providing data acquisition and control capabilities as well as analysis of test engine combustion characteristics. It feels good to know I'm helping General Motors build cleaner, more efficient vehicles that will improve air quality for future generations."*

## Engineering a Healthier World

*"Being a farmer requires a significant amount of physical activity and dexterity. When my hip was replaced, I needed to be back on my feet quickly to begin the fall harvest. My hip prosthetic, which was tested on MTS equipment to ensure high durability and range of motion, allowed me to be highly active and out in the field within three months of my surgery."*

Ken Floren

retired MTS  
vice president



## Products/Applications

## Customers

## Strategies

Integrated equipment, software and consulting services to test ground vehicle:

- Safety
- Noise and Vibration
- Durability
- Performance
- Economy

Audi, Daimler Chrysler, Ford, General Motors, Honda, Hyundai, Nissan, Renault, Toyota, Volkswagen, Volvo

American Axle, Bridgestone/Firestone, Delphi, Goodyear, TRW, Visteon

- Advance the technology and engineering breadth of test techniques, methodologies and applications
- Grow market share through best cost solutions
- Deliver software and consulting solutions to correlate physical and virtual testing results

Integrated equipment, software and consulting services to test aerospace vehicle:

- Durability
- Strength
- Vibration

Airbus, Boeing, Cessna, Embraer, Japan Defense Agency, Lockheed Martin, GE Engines, Pratt & Whitney

- Apply advanced engineering technology to deliver state-of-the-art test capability
- Capture leading market share of new airframe development programs

Integrated equipment, software and consulting services to test the effects of forces and motions on materials and structures including:

- Durability
- Strength
- Flexibility

Guidant, Japan National Research Institute, Japan Ministry of Construction, Lawrence Livermore National Laboratory, Medtronic, Sandia National Labs, State University of New York, Taiwan National Center of Research for Earthquake Engineering

- Deliver best cost solutions in the areas of seismic, civil engineering and geo-mechanics
- Expand nano testing capabilities for research applications

Applications include:

- Manufacturing and process machinery
- Mobile construction and agricultural equipment
- Wood processing equipment
- Medical products equipment
- Aircraft assembly equipment
- Fluid level measurement

Caterpillar, Claas, CNA Manufacturing Systems, Heil, Husky Injection Molding, Nissei Plastics, Process Control Solutions, Stryker

- Profitably expand market and market share by:
  - Fast response to new applications in existing markets
  - Focused investments in new markets, particularly mobile hydraulics
  - Continuous cost reduction

Laser-formed titanium aircraft parts  
Laser-formed refractory alloy parts

Boeing, Honeywell, Lockheed Martin, Northrop Grumman, U.S. Government

- Commercialize laser additive manufacturing process by:
  - Creating industry-wide material and design standards
  - Broadening OEM and government approval
  - Achieving production volume

Test

Industrial

## Engineering a More Productive World

*“Operating heavy-duty bulldozers and other construction and agricultural equipment used to be more art than science. Today, the opposite is true. MTS sensors now feed machine-position information directly into knowledge-based, intelligent operator controls that help newer operators with less experience do jobs that were once reserved for veteran operators. The result — jobs are getting done faster, more safely and with more accuracy.”*

Fred Emanie

Mobile Equipment  
Market Manager, MTS



# Engineering a Better World...for the Future

## Safedesign Insight

*Safedesign Insight software accelerates product development cycles and lowers design costs. This software overlays the results of safety tests (videos) with CAE simulations (models), vastly improving the side-by-side comparison process currently employed by engineers.*



## KS1 Crash Simulator

*The MTS KS1 Crash Simulator, engineered for Volvo Car Corporation in Gothenburg, Sweden, is the most advanced crash simulation system ever built. The KS1 provides low- and high-speed crash capabilities as well as three axis (longitudinal, pitch and heave) motions – ground-breaking testing features that will help Volvo retain its leadership position in automotive safety for years to come.*



## EP2 Sensor

*The EP2 sensor offers the predictability, durability and performance advantages of MTS' Temposonics technology, and is the lowest cost magnetostrictive industrial sensor on the market. It is designed for sale via the Internet.*



## Medical Sensors

*MH and CSP medical sensors are found in applications such as wheelchair van lifts, dental patient chairs and operating room fluid collection equipment. They accurately and reliably measure position and liquid levels.*



## Roadway Simulator

*The U.S. Army is using MTS' Roadway Simulator to test and improve the safety, handling and durability of vehicles supporting national defense. The Simulator is helping transform the Army into a lighter, more agile and rapidly deployable fighting force.*



Photo courtesy of NRC Canada

## Aero ST Controller

*The Aero ST Controller offers a major advance in aerospace structural testing, incorporating the latest hardware technologies and MTS AeroPro software. This software integrates up to 350 control channels and up to 4000 data acquisition channels into one user interface, making test set-ups and data management easier than ever before.*

## Seismic Research Projects

*Under the National Science Foundation's George E. Brown Network for Earthquake Engineering Simulation (NEES) engineering directorate, MTS provided multiple universities with advanced testing solutions that simulate the effects of earthquake and tsunami waves. Test results are being shared among the universities to engineer building and transportation structures that withstand and minimize damage caused by seismic activity.*



SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended September 27, 2003

OR

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

For the Transition Period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 0-2382

**MTS SYSTEMS CORPORATION**

(Exact Name of Registrant as Specified in its Charter)

Minnesota

(State or other jurisdiction of  
incorporation or organization)

41-0908057

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

14000 Technology Drive

Eden Prairie, MN

(Address of Principal Executive Offices)

55344

(Zip Code)

Registrant's telephone number, including area code: (952) 937-4000

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

Securities registered pursuant to Section 12(g) of the Act: Common Stock, \$.25 par value per share

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

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

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

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter: \$239,517,033.

As of December 5, 2003, the registrant had outstanding 20,940,003 shares of Common Stock.

**DOCUMENTS INCORPORATED BY REFERENCE: Portions of the Proxy Statement for the Registrant's Annual Meeting of Shareholders to be held January 27, 2004 are incorporated by reference into Part III of this Form 10-K, to the extent described in such Part.**

## PART I

### Item 1. Business

MTS Systems Corporation (hereafter called "MTS," "the Company," or "the Registrant") is a global supplier of testing products that help customers accelerate and improve their design, development, and manufacturing processes. MTS products are used for determining the mechanical behavior of materials, products, and structures and include computer-based testing and simulation systems, modeling and testing software, and consulting services. The Company is also a leading manufacturer of industrial position sensors. The Company's mission is to help its customers design, develop, and produce their products faster, with higher quality, and at a lower cost. The Company was incorporated on September 12, 1967.

MTS's business approach is based on a set of building-block technologies and business processes. Technologies include sensors for measuring machine and process parameters, control technologies for test and process automation, hydraulic and electric servodrives for precise actuation, and application software to tailor a test or automation system to a specific customer's needs and to analyze results. In combination, these technologies and manufacturing processes provide integrated solutions to customers in a variety of markets. The Company's manufacturing capability includes the production of low to medium volume standard and custom products and systems.

#### Customers and Products by Business Segment

The Company's operations are organized into two business segments: the Test segment and the Industrial segment. The operational alignment of these segments allows the Company to maintain a strategic focus on markets having different product and market applications for the Company's technologies.

Test Segment: Customers of this segment use the Company's products, systems, software, and services for research, product development, and quality control to determine the mechanical properties and performance of materials, products, and structures. In addition to standard products, the Company offers highly customized systems for simulation and testing. These systems frequently contain "first of kind" advances that are new to a specific application. Products include rolling road simulators, friction stir welding machines, and earthquake simulation systems. Many of the segment's products and services support its customers' mechanical design automation processes. The Test segment serves customers in the following industries:

*Ground Vehicles:* This market consists of automobile, truck, motorcycle, construction, agricultural equipment, and off-road vehicle manufacturers and their suppliers. Equipment, software, and consulting services are used to test vehicular safety, noise, vibration and harshness, durability, performance, powertrain, and materials. This represents the largest market segment within the Test segment.

*Aerospace:* These customers use the Company's products, systems, and software for full-scale structural tests on aircraft and aerospace vehicles and components, subsystems, and materials. Aircraft manufacturers of commercial, military, and general aviation airplanes and their suppliers, including engine manufacturers, are included in the customer base.

*Infrastructure:* Customers in this market segment include construction and mineral/petroleum production companies and test laboratories owned and/or operated by universities or governmental entities. Equipment, software, & consulting services are used to test effects of seismic activity, effects of forces on structures, characteristics of materials, and biomechanical properties.

These customers also use the Company's nanomechanical, biomechanical, and servo-hydraulic material testing products and systems in research and product development where a high degree of precision quality control is required during research and production. The nanomechanical test products address the needs of the highly precise semiconductor industry. Biomechanical applications include implants,

prostheses, and other medical and dental devices and materials. Material producers include metal, ceramic, composite, paper, and plastic manufacturers.

The Test segment typically represents approximately 85% of the Company's total revenue and provides the principal markets for the Company's technology.

**Industrial Segment:** Customers of the Industrial segment use the Company's measurement and control instrumentation products to measure process variables and to automate production processes. Typical customers include injection molding manufacturers, mobile equipment producers, sawmill manufacturers, and semiconductor and medical equipment companies. Products in the Industrial segment include:

*Displacement Position and Liquid Level Sensors based on Magnetostrictive Technology:* Displacement sensors accurately measure position and are often used where accurate positioning and continuous control are critical, such as in discrete (piece part) manufacturing machinery, mobile equipment, process control elements and continuous measurement devices. Major applications include injection molding machines, servo-hydraulic cylinders, equipment presses, and sawmills.

Displacement sensors are also used in high-volume applications requiring low-cost position feedback. MTS has the capability of manufacturing low-cost sensor products in various lengths and configurations, while maintaining an extremely high degree of accuracy.

Liquid level sensors accurately measure the level of liquids in tanks and other vessels. These sensors are marketed to control continuous processes in chemical, pharmaceutical, biotechnology, and related markets. The need for highly reliable, accurate measurement of one or more fluid levels is common in most of these applications. These types of products are marketed to the ultimate end users, such as chemical-producing companies, and to original equipment manufacturers that design level measurement or leak detection into their control systems or accessories for remote indication.

*Titanium Part Formation:* The Company, through its wholly owned subsidiary AeroMet Corporation, has developed an innovative, laser-directed metal deposition process for manufacturing parts made of titanium and other metals. This computer-driven process uses a laser to fuse titanium powder or powder of other metals, layer-by-layer, into solid structures. The process significantly reduces the time and cost required to produce complex parts used in the aircraft and aerospace industries.

The Industrial segment typically represents approximately 15% of the Company's total revenue.

## **Common Technologies**

MTS produces systems and products by combining 37 years of application engineering knowledge with common technology building-block components that generally consist of measuring and actuation devices, electronic controls, and application software. The components are designed and configured into products and systems to meet the customer's application specifications. Frequently, special-purpose software is developed to meet a customer's unique requirements.

Services offered to customers include on-site installation, training of customer personnel, and after-market support and maintenance. Proprietary products include sensors, process controls, motors, actuators, process software, and hardware. Although MTS typically sells its products and systems under fixed-price contracts, certain complex systems development and applied research studies are undertaken on a "cost-plus-fixed-fee" contract basis.

## **Product Development Highlights for Fiscal 2003**

MTS invests in product, system, and application development. A combination of internal and customer funding enables MTS to advance the application of its existing technology and develop new capabilities. Additional product development-related information is included in the Research and Development section of the report. Selected highlights of product developments that were in progress or completed during fiscal 2003 include the following:

- The Crash Simulator product for the ground vehicles industry has been enhanced to test vehicle and restraint system performance during extremely low acceleration amplitudes. In addition, productivity and utility of the control software has been expanded to enable remote test definition and analysis through network connectivity.
- Component RPC<sup>R</sup> Pro software is a new product for application in automotive durability testing. It integrates with MTS hardware to enable faster lab testing of components and subassemblies than the testing that comes from the proving grounds. This product provides customers with more accurate durability test results in less testing time.
- The NanoVision™ product option is a new option for Nano Indenter®XP and XPW test systems that couples software and hardware solutions, enabling nanoscale positioning as well as imaging of small volumes of material. This option combines the accuracy of a closed-loop nanopositioning stage and the power of Test Works® 4 software to provide a quantitative means of sample imaging for research and product development customers. NanoVision™ supplements results obtained in instrumented indentation testing with an illustration of a material's response.
- Virtual Indenter™ software has been introduced as a finite-element modeling software product for application in research and product development testing across a wide range of industries. The product performs finite-element simulations of nanoindentation experiments. Through animation of simulations, Virtual Indenter™ software provides a tool to explain core fundamentals of contact mechanics in classroom and laboratory environments. It also can be used to evaluate the analytical models for nanoscale contact mechanics.
- Technological advances were achieved in the Tsunami Wave Simulator system. The wave simulator creates tsunami waves in a wave tank that can be programmed for multiple sizes and shapes and periodic waveforms. The systems are used for hydrological test research in the infrastructure industry.
- A new Roadway Simulator (RWS) was introduced for the ground vehicles industry. This unique system performs multiple tests on a wide range of vehicles. The RWS includes many advances in MTS hardware and software simulation technology. In addition, it provides customers with operating cost savings, repeatability, and increased safety for test engineers.
- Significant technological progress was made in developing components for high-performance dynamometers. These components can be applied to demanding applications in racecar applications and passenger car development. Examples include high-fidelity simulation of engine fire impulses and road or tread features for laboratory ride and comfort evaluation.
- Several advances were made in the Friction Stir Welding (FSW) product family in fiscal 2003. Products include standardized component modules that can be integrated into larger systems. Technology improvements were made to weld heads, control and application software, controllers, and manipulation techniques. The FSW systems are used to seamlessly weld physically large and complex structures in the ground vehicle, aerospace, and infrastructure industries.
- The G-Series Temposonics<sup>R</sup> modular architecture was introduced for sensor products. The architecture consolidates current modular product lines into a new platform for traditional and new market application. New features include PDA programmability and new visual diagnostic facilities, together with improved stability and accuracy. The

primary markets include forest product processing, plastic molding machines, hydraulic power applications, and medical and other discrete manufacturing machinery.

- The Temposonics CSP low-cost product line was introduced for application in mobile equipment and medical applications. The low-cost and small size improves the efficiency of mobile equipment control and the reliability and accuracy of medical machines.
- The Industrial segment introduced the EP2 line of Temposonics sensors. In addition, software enhancements to existing smart sensors for precision machinery control included velocity output.

MTS, RPC, Nano Indenter, TestWorks and Temposonics are registered trademarks and NanoVision and Virtual Indenter are trademarks of MTS Systems Corporation.

### **Characteristics of Sales**

The Company's systems and products are sold worldwide to a large variety of industrial companies, government agencies, and academic and other institutions. MTS is generally not dependent on any single customer for a significant portion of its business. However, approximately 50% of the Company's revenue is associated with the ground vehicles industry. Approximately, 50% of the Company's revenue is from customers outside the United States.

Test segment products and services range in price from less than \$20,000 to over \$20 million. The majority of Test segment revenue is generated by contracts valued at less than \$10 million. The timing and volume of contracts valued at \$10 million or greater may produce volatility in orders, backlog, and quarterly operating results. The majority of customer orders are based on fixed-price quotations and typically have an average sales cycle of six to nine months due to the technical nature of the products and systems. The production cycle for a typical system ranges from one to twelve months, depending on the complexity of the system and the availability of components. The production cycle for larger, more complex systems may be up to three years.

Industrial segment products are sold in quantity at unit prices ranging from \$500 to \$10,000. Production cycles generally vary from several days to several months, depending on the degree of product customization and manufacturing capacity.

During fiscal 2003, the Company's products were shipped to North America, Europe, Asia, and Latin America. The Company's foreign operations and revenue derived from customers located in foreign countries may be affected by local political conditions, export licensing issues and restrictions, and foreign currency exchange rates and volatility.

Sales Channels: The Company sells its products, systems, and services through a direct sales force, independent sales representatives, and, to a much lesser extent, via the Internet and catalog. The sales channels for the Test and Industrial segments are separate from one other. The direct sales force is generally staffed by engineers or highly skilled technicians who are trained to sell MTS equipment, software, and services. The direct sales force is compensated through salary and sales incentives programs, while independent sales representatives are paid on a commission basis.

A list of major domestic and international sales offices for the Company is as follows:

#### Domestic Sales Offices:

Akron, Ohio	Los Angeles, California
Austin, Texas	Milwaukee, Wisconsin
Baltimore, Maryland	Minneapolis, Minnesota
Boston, Massachusetts	Newark, New Jersey
Charlotte, North Carolina	Philadelphia, Pennsylvania

Chicago, Illinois  
Cincinnati, Ohio  
Dallas, Texas  
Dayton, Ohio  
Denver, Colorado  
Detroit, Michigan

Pittsburgh, Pennsylvania  
Raleigh, North Carolina  
Rockford, Illinois  
San Francisco, California  
Seattle, Washington  
Washington, D.C

International Sales Offices:

Beijing, Hong Kong, and Shanghai,  
People's Republic of China  
Berlin and other cities, Germany  
Gloucester, United Kingdom  
Gothenburg, Sweden

Paris, France  
Seoul, South Korea  
Tokyo and other cities, Japan  
Turin, Italy

The Company also has sales and service representative organizations in nearly all industrialized countries of the world and in many of the developing countries of Latin America, Asia, Africa, and the Middle East. The Company offers a mail-order catalog of standard material testing components, accessories, and products.

For additional information regarding the Company's operations by geographic area, see Note 4 to the Consolidated Financial Statements, "Business Segment Information," appearing under Item 8 of this Form 10-K.

Export Licensing: During the fiscal year ended September 27, 2003 and in prior years, MTS made various shipments to Europe, Asia, and other regions throughout the world that required the Company to obtain export approval from the United States government. Although the Company typically does not undertake manufacturing on custom systems or projects until it is assured that the appropriate governmental units will grant export approval, initial design and development work may be performed on certain systems concurrent with the license approval process. Changes in political relations between the United States and foreign countries and/or specific potential customers for which export licenses may be required, as well as various other factors, can adversely affect the Company's ability to complete a shipment should a previously issued license be unexpectedly withdrawn. Political activities in various regions of the world may result in dramatic changes in export control regulations and restrictions within a relatively short period of time. In addition, the United States government maintains multilateral controls in its agreements with allies and unilateral controls based on U.S. initiatives and foreign policy that may, in certain situations, cause delays or cancellations of the Company's planned orders or shipments.

## **Backlog**

The Company's revenue backlog, defined as firm orders from customers that remain unfilled, totaled approximately \$159 million, \$170 million, and \$146 million at September 27, 2003, September 28, 2002, and September 30, 2001, respectively. Based on anticipated production schedules and other factors, the Company believes that approximately \$125 million of the backlog at September 27, 2003 will become revenue during fiscal 2004. Delays may occur as a result of technical difficulties, export licensing or other approvals, changes in scope, manufacturing capacity, or the availability of the customer installation sites. Such delays may affect the period in which the backlog is recognized as revenue. The Company's backlog is subject to order cancellations.

## **Competition**

Test Segment: Equipment, software, and services produced by the Test segment are produced by several other companies throughout the world. The product availability and the intensity of competition vary by product line and by geographic area. The Company's major competitors include, among others, Instron, FCS Test Systems BV, Saganomia, Schenck, and AVL. Customers will consider such factors, among others, as engineering capabilities, quality, technical features of the equipment, overall responsiveness to customer needs, service, and price as they evaluate supplier options.

Alternatively, in lieu of purchasing equipment, software, or services from MTS or its competitors, customers may elect to contract with testing laboratories, including those operated by certain universities and/or governmental units, or they may choose to construct their own testing equipment from commercially available components.

**Industrial Segment:** The Company competes directly with small-to-medium sized specialty suppliers and also with divisions of large companies specializing in measurement and control instrumentation products. Competitors include Balluff Inc., Ametek Inc., and Novotechnic.

### **Manufacturing and Engineering**

The Company conducts a significant portion of its manufacturing and engineering activities for the Test segment from its Corporate headquarters Eden Prairie, Minnesota. The Test segment also has manufacturing plants in Ann Arbor, Michigan and Oak Ridge, Tennessee. In addition, engineering, project management, final systems assembly, and service may be performed in Berlin, Germany; Tokyo, Japan; Paris, France; Turin, Italy; Gloucester, United Kingdom; and Gothenberg, Sweden. Manufacturing and engineering in the Industrial Segment are located in Cary, North Carolina; Minneapolis, Minnesota; and Ludenscheid, Germany.

### **Patents and Trademarks**

Although the Company's overall business is not dependent upon any single patent, license, trademark, or copyright, it holds a number of patents, patent applications, licenses, trademarks, and copyrights that the Company considers, in the aggregate, to constitute a valuable asset. In addition to these intellectual properties, the Company relies on its engineering and technological capabilities to maintain its overall position in the marketplace.

### **Research and Development**

MTS generally does not perform basic research, but it does invest in significant product, system, and software application developments. Costs associated with these development programs are expensed as incurred, and aggregated \$15.6 million, \$15.5 million, and \$18.7 million for the years ended September 27, 2003, September 28, 2002, and September 30, 2001, respectively. From time to time, the Company also contracts with its customers to advance the state of technology and increase product functionality.

### **Executive Officers**

The Executive Officers of the Registrant on the date of this report are:

<b>Name</b>	<b>Office</b>	<b>Officer Since</b>	<b>Age</b>
Sidney W. Emery, Jr.	Chairman, President and Chief Executive Officer	1998	57
Laura B. Hamilton	Senior Vice President Test	2000	42
Susan E. Knight	Vice President and Chief Financial Officer	2001	49
Douglas E. Marinaro	Vice President Software and Consulting	2002	42
Kathie M. Staby	Vice President Human Resources	2000	57
Joachim Hellwig	Vice President Sensors	2003	54

Executive Officers serve at the discretion of and are elected annually by the Company's Board of Directors. Business experience of the Executive Officers (consisting of positions with the Company, unless otherwise indicated) for the last five years, at a minimum, is as follows:

<b>Officer</b>	<b>Business Experience</b>
S. W. Emery, Jr.	Chairman since January 1999. President and Chief Executive Officer since March, 1998. Various management and executive positions with Honeywell International from 1985 to 1997 (Area Vice President, Western and Southern Europe, from 1994 to 1997; Group Vice President, Military Avionics Systems, from 1989 to 1994; Vice President and General Manager, Space Systems Division, from 1988 to 1989; Vice President Operations, Process Controls Division, from 1985 to 1988).
L. B. Hamilton	Senior Vice President of Test since May 2003, Vice President, Material Testing, Aerospace, and Manufacturing Operations from 2001 to 2003. Vice President, Material Testing and Aerospace Divisions, from 2000 to 2001. Director of Re-engineering from 1999 to 2000. Prior thereto, Vice President of Anatomic Pathology Business for Quest Diagnostics (a division of Corning, Inc.) from 1997 to 1999. Executive Director Revenue Services, Quest Diagnostics, from 1995 to 1997.
S. E. Knight	Vice President and Chief Financial Officer since October 2001. Prior thereto, various management and executive positions with Honeywell International from 1977 to 2001 (Chief Financial Officer of the Home and Building Control global business unit from 2000 to 2001; Chief Financial Officer of the North American Home and Building Control business unit from 1995 to 2000, and prior to 1995, various other management positions, including Corporate Director of Financial Planning and Analysis).
D. E. Marinaro	Vice President of Software and Consulting since November 2002. Prior thereto, Vice President, Marketing of Toolwire, Inc. from 2000 to 2002. Various management positions at MSC Software from 1990 to 1999 (Director Sales/Marketing and Business Development for Engineering-e.COM in 1999, Director CAE Data Management from 1996 to 1998, and Manager MVISION Business Unit/PDA Engineering from 1990 to 1996).
K. M. Staby	Vice President of Human Resources since 2000. Prior thereto, various management positions at Medtronic, Inc. from 1974 to 1999 (Vice President, Human Resources for Cardiac Rhythm Management from 1991 to 1999 and for Worldwide Distribution from 1989 to 1991).
J. Hellwig	Vice President of Sensors since January 2003, Vice President and General Manager, Sensor Technologie Europe, from 1993 to January 2003. General Manager, Sensor Technologie Europe, from 1989 to 1993. Prior thereto, Co-Owner of Hellwig GmbH from 1980 to 1989 and Sales and Development Engineer at Hellwig GmbH from 1976 to 1980.

## **Employees**

MTS had 1,630 employees at September 27, 2003, including approximately 440 employees located outside the United States. None of the Company's employees in the United States are currently covered by collective bargaining agreements. In the past, the Company has not experienced any work stoppages at any of its U.S. locations.

## **Sources and Availability of Raw Materials and Components**

A major portion of products and systems delivered to customers may consist of equipment and component parts purchased from third-party vendors. The Company promotes a partnership-type relationship with its vendors, with an emphasis on continuous improvement in a number of critical areas including, but not limited to, quality, performance and technological advances. The Company is

dependent, in certain situations, on a limited number of vendors to provide computing hardware and software devices and raw materials. However, MTS has not experienced significant problems or issues in procuring any essential materials, parts, or components needed in its production process.

Since the Company generally sells its products based on fixed price contracts, fluctuations in the cost of materials or components between the date of order and the delivery date, may impact the expected profitability of any project. Except for the effect of changes in foreign currency rates, the Company believes that such fluctuations in the cost of raw materials and components have not had a material effect on reported operating results.

### **Available Information**

MTS' web site address is [www.mts.com](http://www.mts.com). MTS has available on its web site annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports as soon as reasonably practical after it electronically files such material with, or furnishes it to, the SEC.

### **Environmental Matters**

Management believes that the Company's operations are in compliance with federal, state, and local provisions relating to the protection of the environment.

### **Item 2. Properties**

Properties Located in the United States:

The Company's Corporate headquarters and major Test segment manufacturing, assembly, and research facility, occupying 420,000 square feet, is located on 56 acres of land in the City of Eden Prairie, Minnesota, a suburb of Minneapolis, Minnesota. Since the original plant was placed in service in 1967, six additions of various sizes, with the most recent addition being completed in 1997, have occurred. At the current time, approximately 50% of this facility is used for manufacturing and assembly, while the remainder is used as general office space.

The Industrial segment has a Company-owned 65,000 square foot, combination office and light manufacturing facility in Cary, North Carolina, a suburb of Raleigh, North Carolina. This facility was originally constructed in 1988 and was expanded in 1992.

In addition to the Eden Prairie, Minnesota facility, the Test Segment has five other domestic locations. The Company leases 29,000 square feet in two facilities located in Madison Heights, Michigan and Milford, Ohio. The lease agreements for these facilities terminate in 2004. The Company owns a 57,200 square foot facility in Ann Arbor, Michigan and has an additional 13,000 square feet in Ann Arbor under lease through 2004. MTS owns a 27,000 square foot facility in Cary, North Carolina. The property was vacated in 2002, and it is currently listed for sale. The Company also leases 71,000 square feet in two facilities located in Oak Ridge, Tennessee. The lease agreements for these facilities terminate in 2004.

The Company also has a five-year lease agreement that terminates in 2006 for a 90,000 square foot office, light manufacturing, and warehousing facility in Montgomeryville, Pennsylvania, a suburb of Philadelphia. This facility was used by the Company's Automation division, which was sold in fiscal 2003. The Company is currently subleasing a portion of this facility to a third party.

MTS also leases space in various other cities in the United States that serve primarily as sales and service offices. Neither the amount of leased space nor the rental obligations are significant individually or in the aggregate. The agreements pertaining to each of its leased facilities in the United States contain conventional operating lease terms.

International Facilities:

MTS has manufacturing, assembly, warehousing, and/or office facilities in several European countries to support its international operations:

Berlin, Germany – an 80,000 square foot Company-owned Test segment facility, of which a portion is leased to non-MTS entities. This facility is situated on land leased from the city government. The lease expires in 2052.

Paris, France – a 22,000 square foot leased Test segment facility used for warehousing, service, and administrative functions. The lease expires in 2009.

Lüdenschied, Germany – a 35,000 square foot leased Industrial segment facility located on six acres of land and used for light manufacturing and administrative functions. The lease expires in 2009.

The Company also leases small office and general-purpose space for its sales and service subsidiaries in Gloucester, United Kingdom; Gothenburg, Sweden; Turin, Italy; Seoul, South Korea; Tokyo and other cities in Japan; and Beijing and other cities in the People's Republic of China. No manufacturing is conducted at these locations.

The Company considers its current facilities adequate to support its operations during fiscal 2004.

### **Item 3. Legal Proceedings**

From time to time, the Company is party to various claims, legal actions, and complaints arising in the ordinary course of business. Management believes the final resolution of these matters will not have a material adverse effect on the consolidated financial position or results of operations of the Company.

### **Item 4. Submission of Matters to a Vote of Security Holders**

No matters were submitted for a vote of stockholders during the fourth quarter of the fiscal year ended September 27, 2003.

## **PART II**

### **Item 5. Market for Registrant's Common Equity and Related Stockholder Matters**

Shares of the Company's common stock are traded on The Nasdaq Stock Market's National Market under the symbol "MTSC."

The following table sets forth the high and low sales prices for the periods indicated:

<u>Quarter Ended</u>	<u>Low *</u>	<u>High *</u>
December 31, 2001	\$ 9.10	\$12.35
March 31, 2002	\$ 8.90	\$11.50
June 30, 2002	\$ 9.50	\$13.17
September 28, 2002	\$ 9.60	\$13.20
December 28, 2002	\$ 8.30	\$12.00
March 29, 2003	\$ 9.87	\$11.92
June 28, 2003	\$ 9.75	\$15.25
September 27, 2003	\$12.88	\$15.75

\* Source: The Nasdaq Stock Market, Inc. Summary of Activity Report

At December 5, 2003, there were 1,851 holders of record of the Company's common stock. This number does not reflect shareholders who hold their shares in the name of broker dealers or other nominees.

The Company has historically paid quarterly cash dividends and expects to continue such dividends in the future. During each of the past three years, the Company has paid quarterly cash dividends of \$.06 per share to holders of its common stock.

Under the terms of the Company's revolving credit agreement, certain covenants require net worth, as defined, to exceed a defined minimum amount. At September 27, 2003, net worth, as defined, exceeded the minimum requirement by \$32.4 million.

## Item 6. Selected Financial Data

The table below provides selected historical financial data for the Company, which should be read in conjunction with the consolidated financial statements, the notes to the consolidated financial statements, and "Management's Discussion and Analysis of Financial Condition and Results of Operations," which are included elsewhere in this report. The statement of income data for each of the three years ended September 27, 2003, September 28, 2002, and September 30, 2001 and the balance sheet data at September 27, 2003 and September 28, 2002, are derived from the audited consolidated financial statements included elsewhere in this report. The statement of income data for the years ended September 30, 2000 and 1999 and balance sheet data at September 30, 2001, 2000, and 1999 are derived from the financial statements of the Company that are not included in this report. All amounts have been restated to reflect the sale of the discontinued Automation business, as discussed in Note 2 to the consolidated financial statements.

### Five Year Financial Summary

(September 27, 2003, September 28, 2002, September 30, 2001 and prior)

(expressed in thousands except per share data and numbers of shareholders and employees)

	2003	2002	2001	2000	1999
<b>Operations</b>					
Revenue	\$ 340,087	\$ 327,185	\$ 355,859	\$ 342,631	\$ 350,836
Gross profit	127,297	125,823	131,314	114,067	135,713
Gross profit as a % of revenue	37.4%	38.5%	36.9%	33.3%	38.7%
Research and development expenses	\$ 15,583	\$ 15,491	\$ 18,659	\$ 21,111	\$ 23,062
Research and development as a % of revenue	4.6%	4.7%	5.2%	6.2%	6.6%
Effective income tax rate	35%	32%	35%	31%	31%
Income before cumulative effect of accounting changes <sup>1</sup>	\$ 20,313	\$ 18,003	\$ 13,106	\$ 3,170	\$ 11,132
Return on sales <sup>2</sup>	6.0%	5.5%	3.7%	0.9%	3.2%
Net income	\$ 20,313	\$ 4,282	\$ 10,614	\$ 3,170	\$ 11,132
Net income as a % of revenue	6.0%	1.3%	3.0%	0.9%	3.2%
Diluted earnings per share of common stock before accounting changes <sup>3</sup>	\$ 0.95	\$ 0.84	\$ 0.62	\$ 0.15	\$ 0.53
Diluted earnings per share of common stock	\$ 0.95	\$ 0.20	\$ 0.50	\$ 0.15	\$ 0.53
Weighted average dilutive shares outstanding during the year <sup>4</sup>	21,474	21,433	21,070	20,935	21,183
Net interest expense	\$ (1,452)	\$ (3,002)	\$ (4,691)	\$ 4,852	\$ 4,629
Depreciation and amortization	9,772	9,971	12,180	13,590	12,527
<b>Financial Position</b>					
Current assets	\$ 264,713	\$ 259,101	\$ 255,071	\$ 246,959	\$ 248,512
Current liabilities	109,174	112,756	111,178	\$ 109,114	106,156
Current ratio	2.4:1	2.3:1	2.3:1	2.3:1	2.3:1

Net working capital	\$ 155,539	\$ 146,345	\$ 143,893	\$ 137,845	\$ 142,356
Property and equipment, net	56,204	56,884	61,834	66,088	67,864
Total assets	330,378	325,571	337,443	333,653	338,829
Interest-bearing debt	37,709	51,992	59,305	75,712	71,637
Total shareholders' investment	176,106	162,265	160,738	153,629	159,088
Interest-bearing debt as a % of shareholders' investment	21.4%	32.0%	36.9%	49.3%	45.0%
Return on equity <sup>5</sup>	12.5%	11.2%	8.5%	2.0%	7.4%
Return on equity using net income <sup>6</sup>	12.5%	2.7%	6.9%	2.0%	7.4%
Shareholders' investment per share <sup>7</sup>	8.20	7.57	7.63	7.34	7.51

## Other Statistics

Number of common shareholders of record at year-end <sup>8</sup>	1,907	2,058	2,086	2,229	2,055
Number of employees at year-end	1,630	1,698	1,993	2,088	2,220
New orders received	\$ 324,237	\$ 351,583	\$ 341,663	\$ 359,297	\$ 315,163
Backlog of orders at year-end	159,252	169,993	146,157	145,281	138,411
Cash dividends paid per share	0.24	0.24	0.24	0.24	0.24

<sup>1</sup> Fiscal 2002 excludes the negative impact, net of tax, of the cumulative effect of the adoption of Statement of Accounting Standard (SFAS) No. 142, "Goodwill and Other Intangible Assets," of \$13,721 (of which \$9,198 and \$4,523 were associated with discontinued operations and continuing operations, respectively) or \$0.64 per diluted share. Fiscal 2001 excludes the negative impact of the cumulative effect of the adoption of Staff Accounting Bulletin (SAB) No. 101, "Revenue Recognition in Financial Statements," of \$2,492 (all of which was associated with continuing operations) or \$0.12 per diluted share. Management believes this non-GAAP financial measure provides useful information to investors because, compared to net income, the most directly comparable financial measure prepared in accordance with GAAP, it more accurately reflects the differences in operating results between fiscal years. Net income, computed by including the cumulative effect of the accounting changes, was \$4,282 and \$10,614 for fiscal 2002 and 2001, respectively.

<sup>2</sup> Calculated by dividing income before cumulative effect of accounting changes (see footnote 1) by revenue. Management believes this non-GAAP financial measure provides useful information to investors because, compared to net income as a percent of revenue, net income being the most directly comparable financial measure prepared in accordance with GAAP, it more accurately reflects differences in operating results between fiscal years. Using net income rather than income before cumulative effect of accounting changes in this calculation produces a ratio of 1.3% and 3.0% for fiscal 2002 and 2001, respectively.

<sup>3</sup> Calculated by dividing income before cumulative effect of accounting changes (see footnote 1) by weighted average dilutive shares outstanding during the year. Management believes this non-GAAP financial measure provides useful information to investors because, compared to diluted earnings per share of common stock, the most directly comparable financial measure prepared in accordance with GAAP, it more accurately reflects the differences in operating results between fiscal years. Using net income rather than income before cumulative effect of accounting changes in the calculation results in \$0.20 and \$0.50 per share for fiscal 2002 and 2001, respectively.

<sup>4</sup> Assumes the conversion of potential common shares using the treasury stock method.

<sup>5</sup> Calculated by dividing income before cumulative effect accounting changes (see footnote 1) by beginning shareholders' investment. Management believes this non-GAAP financial measure provides useful information because, compared to return on equity calculated by dividing net income by beginning shareholders' investment, net income being the most directly comparable financial measure prepared in accordance with GAAP, it more accurately reflects the differences in operating results between fiscal years. Management believes this ratio measures the return management is generating on shareholder investment and the efficient use of Company assets and/or the utilization of financial or trade credit to leverage shareholder investment.

Management also believes this ratio is useful in comparing the Company's results with a broader range of investments and, thus, believes it is better to use income before cumulative effect of accounting changes than net income. Using net income rather than income before cumulative effect of accounting changes produces a ratio of 2.7% and 6.9% for fiscal 2002 and 2001, respectively.

<sup>6</sup> Calculated by dividing net income by beginning shareholders' investment.

<sup>7</sup> Calculated by dividing ending shareholders' investment by weighted average dilutive shares outstanding during the year.

<sup>8</sup> Does not include shareholders whose stock is held in the name of broker dealers or other nominees.

## **Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

### **Critical Accounting Policies:**

#### **Fiscal Year**

Effective with fiscal year 2002, the Company changed its fiscal year end to the Saturday closest to September 30. For the years ended September 27, 2003 and September 28, 2002, the Company's fiscal year consisted of 52 weeks. Effective with fiscal 2003, the Company changed its fiscal quarter ends to the Saturday closest to December 31, March 31, and June 30. This change had no material impact on comparability of the Company's financial statements.

#### **Revenue Recognition**

The Company implemented the revenue recognition principles of Staff Accounting Bulletin ("SAB") No. 101, "Revenue Recognition in Financial Statements," as of October 1, 2000. The cumulative effect adjustment of the change in accounting for all periods through September 30, 2000 was a reduction in net income of \$2.5 million (net of income taxes of \$1.6 million), or \$0.12 per diluted share, which was accounted for as a change to the financial results for the first quarter of fiscal 2001. During the fiscal years ended September 28, 2002 and September 30, 2001, the Company recognized \$0.4 million and \$10.0 million of revenues, respectively, which were previously recognized prior to the Company's adoption of SAB 101.

For orders that are manufactured and delivered in less than six months with routine installations and no special acceptance protocol, revenue is recognized when systems are shipped and title has passed to the customer, less the greater of the fair value associated with installation or the amount of consideration that is contingent upon installation, which is deferred until customer acceptance. In cases where special acceptance protocols exist, the Company recognizes revenue upon the completion of installation and fulfillment of obligations specific to the terms of the customer's contract. Revenue on contracts requiring longer delivery periods, generally longer than six months (long-term contracts), is recognized using the percentage-of-completion method based on the cost incurred to date relative to estimated total cost of the contract. In most cases, orders with complex installations and/or unusual acceptance protocols involve long-term contracts for custom systems that follow the percentage-of-completion method of revenue recognition through customer acceptance.

The Company enters into long-term contracts for customized equipment sold to its customers. Under the terms of such contracts, revenue recognized using the percentage-of-completion method may not be invoiced until completion of contractual milestones, upon shipment of the equipment, or upon installation and acceptance by the customer. Unbilled amounts for these contracts appear in the Consolidated Balance Sheets as Unbilled Contracts and Retainage Receivable.

Revenue for services is recognized as the service is performed and ratably over a defined contractual period for service maintenance contracts.

In light of EITF 00-21, "Revenue Arrangements with Multiple Deliverables," orders that are manufactured and delivered in less than six months with routine installations and no special acceptance protocol are considered to involve separable elements. Sufficient evidence of fair value of these elements exists to allow revenue recognition for these systems upon shipment, less the greater of the fair value associated

with installation and training (if applicable) or the amount of revenue that is deemed contingent upon these elements, which is deferred until customer acceptance. In cases where special acceptance protocols exist, installation and training are not considered to be separable from the other elements of the arrangement. Accordingly, revenue for these systems is recognized upon the completion of installation and fulfillment of obligations specific to the terms of the arrangement.

For contracts that involve delivery periods generally longer than six months, due to the complexity of installation and acceptance terms, the design, manufacture and installation elements of such arrangements, in aggregate, fall within the scope of accounting literature prescribing percentage-of-completion accounting through customer acceptance. However, in light of EITF 00-21, when elements that would not separately fall within the scope of accounting literature prescribing percentage-of-completion accounting are included in an arrangement, the fair value of these elements is separated from the arrangement and accounted for as such services are provided.

### **Inventories**

Inventories at September 27, 2003 and September 28, 2002 are as follows:

	2003	2002
	(expressed in thousands)	
Customer projects in various stages of completion	\$ 12,260	\$ 14,331
Components, assemblies and parts	22,449	25,914
<b>Total</b>	<b>\$ 34,709</b>	<b>\$ 40,245</b>

Inventories consist of material, labor, and overhead costs and are stated at the lower of cost or market, determined under the first-in, first-out accounting method.

### **Warranty Obligations**

Sales of the Company's products and systems are subject to limited warranty guarantees that are included in customer contracts. For sales that include installation services, warranty guarantees typically extend for a period of twelve months from the date of either shipment or acceptance. Product warranties typically extend for a period of twenty-four months from the date of purchase. Under the terms of these warranties, the Company is obligated to repair or replace any components or assemblies it deems defective due to workmanship or materials. The Company reserves the right to reject warranty claims where it determines that failure is due to normal wear, customer modifications, improper maintenance, or misuse. The Company records warranty provisions monthly based on an estimated warranty expense percentage applied to current period revenue. The percentage applied reflects historical warranty incidence over the preceding twelve-month period. Both the experience percentage and the warranty liability are evaluated on an ongoing basis for adequacy. Warranty provisions and claims for the years ended September 27, 2003 and September 28, 2002 were as follows:

	2003	2002
	(expressed in thousands)	
Beginning balance	\$ 4,482	\$ 4,324
Warranty provisions	5,927	4,443
Warranty claims	(5,850)	(4,378)
Translation adjustment	303	93
<b>Ending balance</b>	<b>\$ 4,862</b>	<b>\$ 4,482</b>

## Management Discussion and Analysis:

### Customer Orders and Backlog

	2003	2002	2001
	(expressed in thousands)		
Customer Orders	\$ 324,237	\$ 351,583	\$ 341,663
Backlog of			
Undelivered Orders	\$ 159,252	\$ 169,993	\$ 146,157

New orders from customers during fiscal 2003 totaled \$324.2 million, a decrease of \$27.4 million, or 7.8%, compared to customer orders of \$351.6 million booked in fiscal 2002. In fiscal 2001, customer orders totaled \$341.7 million. The negative trend in the last year is the result of continued weakness in North American and Asian Test segment markets, partially offset by increased volume in Europe. At this time, the Company does not anticipate a significant change in these economies in the near term. In fiscal 2003, the Company received one order in excess of \$10 million, compared to three such orders in fiscal 2002 and one in fiscal 2001, all of which were within the Test segment. The Company has been notified of the potential cancellation of a customer order for \$10.4 million. This order was included in year-end backlog in both fiscal 2003 and 2002. Orders increased as a result of the translation of foreign-denominated currency orders into U.S. dollars by \$12.2 million in fiscal 2003. Excluding the impact of currency, fiscal 2003 orders would have been \$312.0 million.

Orders for the Test segment totaled \$274.7 million in fiscal 2003, a decrease of \$33.5 million, or 10.9%, compared to customer orders of \$308.2 million for fiscal 2002. Test segment orders for fiscal 2001 totaled \$303.6 million. The Test segment booked 84.7% of total Company orders in fiscal 2003, compared to 87.7% for fiscal 2002 and 88.8% for fiscal 2001. Orders for the Test segment in the Americas and Asia were significantly down, while orders in Europe increased compared to fiscal 2002. The growth in Europe is largely due to continued demand for ground vehicle products. During fiscal 2003, the Company experienced reduced order demand in the global aerospace and infrastructure markets as customer restrictions on new capital spending continued. Fiscal 2002 orders were also higher due to a large project order with the Japanese government, which did not repeat in fiscal 2003.

Customer orders for the Industrial segment totaled \$49.5 million for fiscal 2003, an increase of \$6.1 million, or 14.1%, compared to customer orders during fiscal 2002 of \$43.4 million. New customer orders for the Industrial segment in fiscal 2001 totaled \$38.1 million. The increase reflects increased Sensors business volume in Europe from new markets and customer inventory replenishment. This segment accounted for 15.3% of total Company orders during fiscal 2003, compared to 12.3% and 11.2% in fiscal 2002 and fiscal 2001, respectively. During fiscal 2001, the Industrial segment experienced weak orders worldwide for sensors.

On a geographic basis, orders from customers located in the Americas totaled \$146.7 million during fiscal 2003, down \$28.5 million, or 16.3%, compared to orders of \$175.2 million for fiscal 2002. Orders received in the Americas during fiscal 2001 totaled \$169.5 million. International orders received during fiscal 2003 of \$177.5 million increased by \$1.1 million, or 0.6%, compared to orders received during fiscal 2002 of \$176.4 million. International orders in fiscal 2001 totaled \$172.2 million. The backlog of undelivered orders at September 27, 2003 totaled \$159.3 million, a decrease of approximately \$10.7 million, or 6.3%, compared to backlog of \$170.0 million at September 28, 2002. Backlog at the end of fiscal 2001 totaled \$146.2 million. The decrease in backlog is attributable to a decrease in long-cycle versus short-cycle orders in fiscal 2003. A reduction in large custom project orders accounted for the majority of the decrease in backlog. The Company believes backlog is not an absolute indicator of its future revenue because a substantial portion of the orders constituting this backlog could be cancelled at the customers' discretion.

### Revenue

	2003	2002	2001
	(expressed in thousands)		
Revenue	\$340,087	\$ 327,185	\$355,859

Revenue of \$340.1 million for fiscal 2003 increased \$12.9 million, or 3.9%, compared to \$327.2 million for fiscal 2002. Revenue for fiscal 2001 totaled \$355.9 million. On a segment basis, revenue for the Test segment in fiscal 2003 totaled \$292.0 million, comparing favorably to revenue of \$287.0 million for fiscal 2002 and unfavorably to revenue of \$316.1 million for fiscal 2001. The increase in revenue for fiscal 2003 was principally due to an increase in beginning backlog, partially offset by the timing of large custom projects. The decrease in revenue for fiscal 2002 was principally driven by the decline in capital spending in worldwide industrial and ground vehicles markets. The shorter cycle businesses, particularly those related to the ground vehicle markets, experienced the largest decline in revenue. Revenue in the Industrial segment totaled \$48.1 million for fiscal 2003, compared to \$40.2 million for fiscal 2002 and \$39.8 million for fiscal 2001. Revenue in the Industrial segment increased in fiscal 2003 compared to fiscal 2002 largely due to sales into new markets as well as customer inventory replenishment in the European Sensors business and increased development revenues in the AeroMet business. Fiscal 2002 was negatively impacted by worldwide economic factors, which resulted in a significant drop in demand from fiscal 2001. Translating foreign-denominated revenue into U.S. dollars resulted in an increase in revenue in fiscal 2003 of approximately \$17.6 million. Excluding the impact of currency, revenue in fiscal 2003 would have decreased by approximately \$4.7 million compared to fiscal 2002.

Revenue of \$157.3 million in the Americas for fiscal 2003 was flat compared to revenue of \$157.9 million for fiscal 2002. Revenue in the Americas for fiscal 2001 totaled \$169.3 million. Revenue in Europe of \$119.4 million for fiscal 2003 increased \$27.1 million, or 29.4%, compared to \$92.3 million for fiscal 2002 and \$95.2 million for fiscal 2001. Revenue of \$60.5 million in Asia for fiscal 2003 decreased \$16.1 million, or 21.0%, compared to \$76.6 million for fiscal 2002 and \$90.9 million for fiscal 2001. Other miscellaneous international revenue totaled \$2.9 million, \$0.4 million, and \$0.5 million, respectively, for fiscal 2003, 2002, and 2001.

Although selective product price changes were implemented during each of the three fiscal years, the overall impact of pricing changes did not have a material effect on reported revenue.

#### Gross Profit

	2003	2002	2001
	(expressed in thousands)		
Gross Profit	\$ 127,297	\$ 125,823	\$ 131,314
% of Revenue	37.4%	38.5%	36.9%

Gross profit as a percentage of revenue decreased to 37.4% for fiscal 2003 from 38.5% for fiscal 2002 and increased from 36.9% for fiscal 2001. The gross profit rate for the Test segment was 35.7% for fiscal 2003, down from 37.5% for fiscal 2002 and up from 35.2% for fiscal 2001, while the gross profit rate in the Industrial segment was 48.0% in fiscal 2003, roughly flat compared to 47.7% in fiscal 2002 and down from 49.7% in fiscal 2001. Gross profit in the Test segment decreased during fiscal 2003, primarily due to product mix. In addition, fiscal 2002 gross profit reflected high margins in the aerospace market, resulting from a large high-margin project which did not repeat in fiscal 2003. Unfavorable product mix in the Industrial segment was offset by increased sales volume, resulting in a flat gross margin rate for fiscal 2003 compared to fiscal 2002.

Translating foreign denominated revenue into U.S. dollars resulted in an increase in gross profit in fiscal 2003 of approximately \$5.2 million. Excluding the impact of currency, gross profit in fiscal 2003 would have decreased by approximately \$3.7 million compared to fiscal 2002.

#### Selling, General, and Administrative Expenses

	2003	2002	2001
	(expressed in thousands)		
Selling	\$ 52,210	\$ 51,120	\$ 54,072
General & Administrative	26,388	27,924	32,173
Total	\$ 78,598	\$ 79,044	\$ 86,245
% of Revenue	23.1%	24.2%	24.2%

Selling, general and administrative ("SG&A") expenses as a percentage of revenue decreased 1.1 percentage points in fiscal 2003 compared to fiscal 2002. Selling expense increased in fiscal 2003 consistent with the fiscal 2003 increase in revenue, partially offset by the benefit of headcount reductions made in late fiscal 2002. General & administrative expenses decreased during fiscal 2003, principally due to \$0.8 million of non-recurring audit and related fees associated with the Company's fiscal 2002 and prior year restatement activity as well as the fiscal 2003 recovery of \$0.5 million in bad debt previously written off. Over the past several years, the Company has focused on several initiatives in both the Test and Industrial segments aimed at overall cost control and the alignment of resources with current and anticipated economic conditions and with markets having the greatest potential.

SG&A expense in the Test segment decreased to \$62.7 million in fiscal 2003 from \$64.9 million and \$72.7 million in fiscal 2002 and 2001, respectively. The reduction in fiscal 2003 was primarily due to fiscal 2002 non-recurring audit and related expenses, as well as the fiscal 2003 recovery of bad debt, which are both discussed above. In fiscal 2001, general and administrative expenses of the Test segment included a provision of \$1.8 million related to the restructuring of the Company's manufacturing facility located in France. The Company also recorded \$0.6 million of expenses associated with the closure of its laboratory instruments business that was acquired as part of its acquisition of DSP Technology, Inc. ("DSP").

SG&A expense in the Industrial segment in fiscal 2003 increased to \$15.9 million from \$14.1 million in fiscal 2002 and \$13.5 million in fiscal 2001. The increase is primarily due to an increase in selling expense consistent with the increase in revenue in the Sensors business. Selling expense as a percentage of revenue decreased to 18.3% in fiscal 2003 from 19.7% in fiscal 2002 due to the benefit of headcount reductions in fiscal 2002.

#### Research and Development Expenses

	2003	2002	2001
	(expressed in thousands)		
Research & Development	\$ 15,583	\$ 15,491	\$ 18,659
% of Revenue	4.6%	4.7%	5.2%

The Company provides research and development (R&D) funds for equipment and software application development in the Test and Industrial segments. During fiscal 2003, approximately 80.0% of R&D spending was in the Test Segment, compared to 81.7% and 84.4%, respectively, in fiscal 2002 and 2001.

The overall decrease in R&D spending as a percentage of revenue over the three-year period is primarily due to management initiatives to focus spending on developments that have the greatest market potential and the highest return opportunity. As a result of these initiatives and management's planned cutback in spending, R&D spending as a percentage of revenue decreased to 4.6% and 4.7% in fiscal 2003 and 2002, respectively, compared to 5.2% in fiscal 2001.

#### Interest Income (Expense)

	2003	2002	2001
	(expressed in thousands)		
Interest Expense	\$ (3,621)	\$ (4,203)	\$ (5,063)
Interest Income	\$ 2,169	\$ 1,201	\$ 372

Interest expense of \$3.6 million in fiscal 2003 decreased compared to interest expense of \$4.2 million and \$5.1 million in fiscal 2002 and 2001, respectively, primarily due to reduced long-term debt obligations throughout the three-year period. Interest income of \$2.2 million in fiscal 2003 increased compared to interest income of \$1.2 million and \$0.3 million in fiscal 2002 and 2001, respectively, resulting from interest earned on increased short-term investment balances in fiscal 2003 and 2002.

### Gain on Investment

During fiscal 2002 the Company liquidated its investment in Mechanical Dynamics, Inc. The Company sold securities and recorded proceeds from the sale of \$4.9 million, which produced a gain on sale of \$2.6 million. This transaction represented the entire amount of the holdings.

### Other Income, net

Other income for fiscal 2003 primarily derived from non-recurring proceeds from penalties associated with a canceled customer contract, partially offset by the negative impact of foreign currency exchange on the settlement of transactions. Other income for fiscal 2002 and 2001 primarily derived from the positive impact of foreign currency exchange on settlement of transactions.

### Operating Results

	2003	2002	2001
Income Before Income Taxes, Discontinued Operations, and Cumulative Effect of Accounting Changes	\$ 32,516	\$ 32,883	\$ 23,844
% of Revenue	9.6%	10.1%	6.7%
Effective Income Tax Rate	35%	32%	35%
Income Before Discontinued Operations and Cumulative Effect of Accounting Changes	\$ 21,291	\$ 22,270	\$ 15,556
Income Before Discontinued Operations and Cumulative Effect of Accounting Changes per Diluted Share	\$ 1.00	\$ 1.04	\$ 0.74

Income before income taxes, discontinued operations, and cumulative effect of accounting changes totaled \$32.5 million for fiscal 2003, compared with \$32.9 million for fiscal 2002, as increased revenue and income from operations in fiscal 2003 was more than offset by the impact of the one-time gain on sale of an investment recorded in fiscal 2002. Income before income taxes, discontinued operations, and cumulative effect of accounting changes for fiscal 2001 included a charge of \$1.9 million (of which \$1.3 million is reflected as an increase to Cost of Sales and \$0.6 million as an increase to General and Administrative expense) related to the closure of its laboratory instruments business acquired as part of its acquisition of DSP Technology, Inc. ("DSP"). In addition, the Company also recorded a charge of \$2.3 million in fiscal 2001 as a result of its decision to restructure operations in France. Translating foreign-denominated operating profit into U.S. dollars resulted in an increase in operating profit in fiscal 2003 of approximately \$2.2 million. Excluding the impact of currency, operating profit in fiscal 2003 would have decreased by approximately \$2.6 million compared to fiscal 2002.

Income from operations for the Test segment was \$29.1 million in fiscal 2003, flat compared to \$29.0 million for fiscal 2002, as lower gross margins were mitigated by reduced general and administrative expenses. Income from operations for the Test segment totaled \$23.8 million in 2001. The significant increase from fiscal 2001 to fiscal 2002 was the result of improvements in the project management of large, complex custom projects, favorable product mix, and the benefit of cost and productivity initiatives. Income from operations for the Industrial segment increased to \$4.0 million for fiscal 2003 from \$2.2 million for fiscal 2002, primarily due to increased revenue. Income from operations for the Industrial segment totaled \$2.6 million in fiscal 2001.

The effective tax rate for each of the years presented is impacted by the geographic mix of income, with foreign income generally taxed at higher rates than domestic income. In addition, the effective tax rate is favorably impacted by the Company's foreign exports and qualified R&D costs. A greater percentage of the Company's income was earned in foreign jurisdictions in fiscal 2003 compared to fiscal 2002 and 2001. Additionally, in fiscal 2002, the Company's foreign exports were proportionately higher than in fiscal years 2003 and 2001, increasing the favorable rate impact of related tax deductions.

In fiscal 2003, income before discontinued operations and the cumulative effect of accounting changes, net of tax decreased to \$21.3 million (\$1.00 per diluted share), from \$22.3 million (\$1.04 per diluted share) for fiscal 2002 and increased from \$15.6 million (\$0.74 per diluted share) for fiscal 2001.

## Discontinued Operations

During the second and third quarters of fiscal 2003, the Company sold its Automation division, which was based in New Ulm, Minnesota and also maintained operations in Montgomeryville, Pennsylvania and Freiburg and Straslund, Germany. On March 31, 2003, the Company sold substantially all of the net assets and intellectual property associated with the Automation division's gradient amplifier product line. On April 11, 2003, the Company sold all the remaining net assets of the North American Automation division, based in New Ulm, Minnesota and on April 30, 2003 sold, to the same buyer, its stock in the Automation division's German operations, which completed the sale of the Company's entire Automation division and its exit from the motor and amplifier business. In March 2003, the Company discontinued the custom military business of its Automation division. As a result of these sales, the Company recorded a loss of \$1.2 million, net of taxes.

The Automation division was historically included in the Company's Industrial segment for financial reporting, and the results of the operations of the Automation division have been reported as discontinued operations.

Following are the operating results of the discontinued operations included in the Company's results for the respective periods:

	2003	2002	2001
	(expressed in thousands)		
Revenue	\$ 15,756	\$ 28,686	\$ 41,500
Income (loss) on discontinued operations before taxes, loss on sale and cumulative effect of accounting change	\$ 353	\$ (6,961)	\$ (4,013)

At September 28, 2002, assets of discontinued operations consisted primarily of inventory, accounts receivable and property and equipment of \$6.6 million, \$4.7 million, and \$2.7 million, respectively, and liabilities of discontinued operations of \$1.8 million consisted primarily of accounts payable and accrued payroll and related costs.

## Cash Flows

Overall cash flow has significantly improved from fiscal 2001 due to the Company's focus on working capital improvement initiatives. During fiscal 2003, cash and cash equivalents increased by \$11.7 million, and short-term investments increased by \$23.5 million.

*Cash flows from operating activities* provided cash of \$55.3 million during fiscal 2003, compared to \$84.3 million generated in fiscal 2002 and \$38.1 million generated in fiscal 2001. The decrease in cash provided by operating activities during fiscal 2003 compared to fiscal 2002 was principally due to significant improvements in accounts receivable and inventory made during fiscal 2002. The impact of these actions resulted in accounts receivables and inventory balances, in the aggregate, decreasing by \$26.5 million more in fiscal 2002 than in fiscal 2003.

*Investing activities* consumed cash of \$17.4 million during fiscal 2003, compared to cash usages of \$35.3 million in fiscal 2002 and \$8.1 million in fiscal 2001. During fiscal 2003, the Company invested \$84.6 million in short-term investments and \$6.6 million for additions to property and equipment, partially offset by realized proceeds of \$61.1 million and \$12.6 million from the maturity of short-term investments and the sale of businesses, respectively. During fiscal 2002, the Company invested \$35.1 million in short-term investments and \$5.1 million in property and equipment, and realized proceeds of \$4.9 million from the sale of its investment in Mechanical Dynamics, Inc. stock. During fiscal 2001, cash invested was used for additions to property and equipment.

Cash flows from financing activities required the use of cash of \$29.9 million during fiscal 2003, primarily as a result of the repurchases of the Company's common stock of \$16.5 million, repayment of interest-bearing debt of \$15.4 million, and payment of cash dividends of \$5.1 million, partially offset by \$7.0 million received in connection with employees' exercise of stock options and purchases under the Company's stock purchase plan. During fiscal 2002, the Company used \$11.5 million of cash for financing activities, primarily for the net repayment of interest-bearing debt of \$7.0 million, payment of cash dividends of \$5.1 million, and repurchases of its common stock of \$1.5 million, partially offset by funds received in connection with employees' exercise of stock options and purchases under the Company's stock purchase plan. During fiscal 2001, the Company used cash of \$19.9 million for financing activities, primarily for the net repayment of interest-bearing debt of \$16.6 million, payment of cash dividends of \$5.0 million, and repurchases of its common stock of \$2.7 million, partially offset by funds received in connection with employees' exercise of stock options and stock purchases.

### Liquidity and Capital Resources

The Company believes that its anticipated operating cash flow, funds available from cash equivalents and short-term investments totaling \$132.7 million at September 27, 2003, and unused financing sources are adequate to fund ongoing operations, capital expenditures, and share repurchases, as well as to fund opportunities to grow its business organically and through business acquisitions.

At September 27, 2003, the Company's contractual obligations are as follows:

Contractual Obligations	Total	Payments Due by Period (in thousands of dollars)			
		Less than 1 year	1 - 3 years	4 - 5 years	More than 5 years
Notes Payable to Banks	\$ 383	\$ 383	\$ -	\$ -	\$ -
Long-Term Debt Obligations	37,326	6,839	13,563	14,616	2,308
Capital Lease Obligations	262	95	133	34	-
Operating Lease Obligations	16,018	3,937	6,403	2,599	3,079
Total	\$ 53,989	\$ 11,254	\$ 20,099	\$ 17,249	\$ 5,387

The Company had no amounts outstanding on its primary \$25 million revolving bank credit facility during fiscal 2003. The Company's primary foreign subsidiaries also have committed and uncommitted bank facilities available on either a freestanding basis or with guarantees from the Company. At September 27, 2003, the Company was in compliance with the financial terms and conditions of each of its debt and credit facility agreements.

Total interest-bearing debt at September 27, 2003 was \$37.7 million, down from \$52.0 million at September 28, 2002. Operating leases are primarily for office space related to sales and service offices. Letters of credit and guarantees are primarily issued to secure advance payments received and performance on project contracts. At September 27, 2003, the Company had letters of credit outstanding totaling \$ 48.1 million and guarantees totaling \$11.6 million.

Shareholders' Investment increased by \$13.8 million during fiscal 2003, to \$176.1 million. The change in Shareholders' Investment during fiscal 2003 was primarily the result of profitable operating results, foreign currency translation gains of \$7.3 million, funds and related tax benefits received from the exercise of employee stock options, and employee purchases of the Company's stock under its stock purchase plan of \$8.1 million. This increase was partially offset by \$16.5 million in repurchases of the Company's stock and \$5.1 million in payment of cash dividends.

### Changes in Foreign Currency Exchange Rates

The Company conducts business in countries outside the United States and is exposed to market risk from changes in foreign currency exchange rates that can affect its operating results and financial condition. To minimize this risk, the Company manages exposure to changes in foreign currency rates, principally through forward currency exchange contracts to set the dollar value of expected foreign currency-denominated assets, liabilities, and transactions. Gains and losses on these contracts offset gains and losses on the assets, liabilities, and transactions being hedged.

Historically, approximately 50-55% of the Company's revenue results from shipments to customers outside the United States, and about 65% of this revenue (approximately 30% of the Company's total revenue) is denominated in currencies other than the U.S. dollar. As a result, a strengthening of the U.S. dollar relative to foreign currencies decreases the foreign currency-denominated revenue and earnings when they are translated to U.S. dollars. Conversely, a weakening of the U.S. dollar has the reverse effect on revenue and earnings. Gains and losses attributed to translating the financial statements for all non-U.S. subsidiaries are included in the currency translation adjustments.

The gains and losses on foreign currency transactions and on the translation of current foreign currency-denominated assets and liabilities are included in Other Income, net in the accompanying consolidated statements of income. Mark-to-market gains or losses on transactions designated as exposures in the Company's currency hedging program, as well as on the translation of non-current assets and liabilities, are reported in Other Comprehensive Income on the balance sheet.

### Restructuring and Other Charges

During fiscal 2003, the Company had no significant restructuring activities related to business consolidation other than the discontinuation of its Automation division (see Note 2 to the Consolidated Financial Statements).

During fiscal 2002, the Company consolidated its Electromechanical Testing Division into Eden Prairie, Minnesota from Raleigh, North Carolina. The physical move of the business and the facility closure were completed during fiscal 2002. As a result of the consolidation, the Company recorded a \$0.4 million charge for severance-related costs and a \$0.6 million charge to write down inventory. Substantially all of the severance costs were paid during fiscal 2002.

During fiscal 2001, the Company recorded a restructuring charge of \$2.3 million as a result of the closure of its manufacturing operations in France and the transfer of this product line to its Electromechanical Testing Division in North Carolina. Substantially all the necessary cash outlays were completed during fiscal 2001. These costs were financed primarily with funds from continuing operations and borrowings under the Company's bank line of credit. In addition, during fiscal 2001 the Company recorded a restructuring charge of \$1.9 million related to the discontinuation of a line of data acquisition products acquired as part of its 1999 acquisition of DSP Technology, Inc. ("DSP") in 1999. This included a provision for severance costs of \$0.8 million, the write-off of leasehold improvements and production and other equipment of \$0.3 million, and other costs of \$0.8 million associated with closure of the facility, the wind-down of the related product line, excess and obsolete inventory, uncollectible receivables and the write-off of fixed assets. Of the total \$1.9 million, \$1.3 million was charged to Cost of Sales and \$0.6 million was charged to General and Administrative Expense. The activity related to the provision was materially complete at September 30, 2001, and no additional charges were incurred during fiscal 2002.

For the three years ended September 27, 2003, September 28, 2002, and September 30, 2001, the reserve for restructuring is as follows:

Year	Beginning Balance	Provision	Write-off	Ending Balance
(expressed in thousands)				
2001	\$ -	\$ 4,193	\$ (3,972)	\$ 221
2002	221	1,019	(1,219)	21
2003	21	-	(21)	-

### Recent Accounting Pronouncements

In November 2002, the Emerging Issues Task Force finalized its tentative consensus on EITF Issue 00-21, "Revenue Arrangements with Multiple Deliverables," which provides guidance on the timing of

revenue recognition for sales undertakings to deliver more than one product or service. The Company adopted EITF 00-21 on transactions occurring in fiscal periods beginning after June 15, 2003, as required.

In light of EITF 00-21, orders that are manufactured and delivered in less than six months with routine installations and no special acceptance protocol are considered to involve separable elements. Sufficient evidence of fair value of these elements exists to allow revenue recognition for these systems upon shipment, less the greater of the fair value associated with installation and training (if applicable) or the amount of revenue that is deemed contingent upon these elements, which is deferred until customer acceptance. In cases where special acceptance protocols exist, installation and training are not considered to be separable from the other elements of the arrangement. Accordingly, revenue for these systems is recognized upon the completion of installation and fulfillment of obligations specific to the terms of the arrangement.

For contracts that involve delivery periods generally longer than six months, due to the complexity of installation and acceptance terms, the design, manufacture and installation elements of such arrangements, in aggregate, fall within the scope of accounting literature prescribing percentage-of-completion accounting through customer acceptance. However, in light of EITF 00-21, when elements that would not separately fall within the scope of accounting literature prescribing percentage-of-completion accounting are included in an arrangement, the fair value of these elements is separated from the arrangement and accounted for as such services are provided.

The adoption of EITF 00-21 did not have a material effect on the Company's fiscal 2003 financial statements.

In April 2003, the FASB issued Statement of Financial Accounting Standard ("SFAS") No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging," which amends and clarifies financial accounting and reporting for derivative instruments. SFAS No. 149 is effective for contracts entered into or modified after June 30, 2003 and for hedging relationships designated after June 30, 2003. The Company has concluded there will be no material impact of its adoption.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity," which establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. SFAS No. 150 was adopted by the Company in fiscal 2003. The Company does not have any activities that are subject to the requirements of SFAS No. 150.

#### **Dividends and Other Stock Matters**

The Company's dividend policy is to maintain a target payout ratio of 25% of earnings per share over the long term. The Company paid quarterly dividends of \$0.06 per share during fiscal 2003, 2002 and 2001.

During fiscal 2003, the Company repurchased 1.2 million shares of its common stock at an average cost of \$13.21 per share. Pursuant to plans adopted by its Board of Directors during May 2001 and 2002, the Company has authorization to repurchase an additional 0.7 million shares of its common stock. The Company repurchased 0.1 million shares of its common stock at an average cost of \$10.23 per share in fiscal 2002 and 0.2 million shares in fiscal 2001 at an average cost of \$8.19 per share. The primary objective of the share repurchase program is to offset the dilutive effect of shares of common stock issued in connection with its employee stock option and employee stock purchase programs. During the three years ended September 27, 2003, September 28, 2002, and September 30, 2001, the Company issued approximately 0.8 million, 0.3 million, and 0.6 million shares, respectively, of its common stock under the stock option and stock purchase programs.

#### **Quarterly Stock Activity and Financial Information (1)**

Revenue and operating results reported on a quarterly basis do not necessarily reflect changes in demand for the Company's products or its operating efficiency. Revenue and operating results in any quarter can be significantly affected by customer shipment and/or installation timing or the timing of the completion of one or more systems where revenue is recognized upon shipment or customer acceptance rather than on the percentage-of-completion accounting method. The Company's use of the

percentage-of-completion revenue recognition method for large, long-term projects generally has the effect of smoothing significant fluctuations from quarter to quarter. See Note 1 to the Consolidated Financial Statements for additional information on the Company's revenue recognition policy. Quarterly earnings also vary as a result of the use of estimates including, but not limited to, the rates used in recording federal, state, and foreign income tax expense. See Notes 1 and 6 to the Consolidated Financial Statements for additional information on the Company's use of estimates and income tax related matters.

Quarterly stock information for the fiscal years ended September 27, 2003 and September 28, 2002 is as follows:

	2003			2002		
	Price High	Price Low	Shares Traded	Price High	Price Low	Shares Traded
1st Quarter	\$ 12.00	\$ 8.30	2,137	\$ 12.35	\$ 9.10	2,447
2nd Quarter	\$ 11.92	\$ 9.87	2,355	\$ 11.50	\$ 8.90	3,048
3rd Quarter	\$ 15.25	\$ 9.75	7,452	\$ 13.17	\$ 9.50	4,642
4th Quarter	\$ 15.75	\$ 12.88	5,905	\$ 13.20	\$ 9.60	2,995

(1) Source: The Nasdaq Stock Market

Selected quarterly financial information for the fiscal years ended September 27, 2003 and September 28, 2002 is as follows:

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
(expressed in thousands except per share data)					
<b>2003</b>					
Revenue	\$ 84,439	\$ 93,236	\$ 79,312	\$ 83,100	\$ 340,087
Gross profit	31,306	33,320	30,739	31,932	127,297
Income before income taxes and discontinued operations	8,467	9,566	6,097	8,386	32,516
Income before discontinued operations	5,700	6,382	4,085	5,124	21,291
Discontinued Operations:					
(Loss) income from discontinued operations, net of tax	(203)	(17)	419	-	199
(Loss) gain on sale of discontinued businesses, net of tax	-	(2,402)	1,225	-	(1,177)
Discontinued Operations, net of tax	(203)	(2,419)	1,644	-	(978)
Net income	\$ 5,497	\$ 3,963	\$ 5,729	\$ 5,124	\$ 20,313
Earnings per share					
Basic					
Income before discontinued operations	\$ 0.27	\$ 0.30	\$ 0.20	\$ 0.24	\$ 1.01
Discontinued Operations:					
(Loss) income from discontinued operations, net of tax	(0.01)	-	0.02	-	0.01
(Loss) gain on sale of discontinued businesses, net of tax	-	(0.11)	0.05	-	(0.06)
Discontinued Operations, net of tax	(0.01)	(0.11)	0.07	-	(0.05)
Earnings per share	\$ 0.26	\$ 0.19	\$ 0.27	\$ 0.24	\$ 0.96
Diluted					
Income before discontinued operations	\$ 0.27	\$ 0.30	\$ 0.19	\$ 0.24	\$ 1.00

Discontinued Operations:					
(Loss) income from discontinued operations, net of tax	(0.01)	-	0.02	-	0.01
(Loss) gain on sale of discontinued businesses, net of tax	-	(0.12)	0.06	-	(0.06)
<b>Discontinued Operations - net of tax</b>	<b>(0.01)</b>	<b>(0.12)</b>	<b>0.08</b>	<b>-</b>	<b>(0.05)</b>
<b>Earnings per share</b>	<b>\$ 0.26</b>	<b>\$ 0.18</b>	<b>\$ 0.27</b>	<b>\$ 0.24</b>	<b>\$ 0.95</b>

## 2002

Revenue	\$ 79,598	\$ 84,665	\$ 79,695	\$ 83,227	\$ 327,185
Gross profit	30,616	32,450	30,823	31,934	125,823
Income before income taxes, discontinued operations, and cumulative effect of accounting change	7,264	11,685	5,041	8,893	32,883
Income before discontinued operations and cumulative effect of accounting change	4,886	7,771	3,464	6,149	22,270
Discontinued Operations:					
Loss from discontinued operations, net of tax	(1,173)	(2,608)	(205)	(281)	(4,267)
Cumulative effect of accounting change, net of tax	(9,198)	-	-	-	(9,198)
<b>Discontinued Operations, net of tax</b>	<b>(10,371)</b>	<b>(2,608)</b>	<b>(205)</b>	<b>(281)</b>	<b>(13,465)</b>
(Loss) income before cumulative effect of accounting change on continuing operations	(5,485)	5,163	3,259	5,868	8,805
Cumulative effect of accounting change, net of tax	(4,523)	-	-	-	(4,523)
<b>Net (loss) income</b>	<b>\$ (10,008)</b>	<b>\$ 5,163</b>	<b>\$ 3,259</b>	<b>\$ 5,868</b>	<b>\$ 4,282</b>
Earnings (loss) per share					
Basic					
Income before discontinued operations and cumulative effect of accounting change	\$ 0.24	\$ 0.37	\$ 0.16	\$ 0.29	\$ 1.06
Discontinued Operations:					
Loss from discontinued operations, net of tax	(0.06)	(0.12)	(0.01)	(0.01)	(0.20)
Cumulative effect of accounting change, net of tax	(0.44)	-	-	-	(0.44)
<b>Discontinued Operations, net of tax</b>	<b>(0.50)</b>	<b>(0.12)</b>	<b>(0.01)</b>	<b>(0.01)</b>	<b>(0.64)</b>
(Loss) income before cumulative effect of accounting change on continuing operations	(0.27)	0.25	0.15	0.28	0.41
Cumulative effect of accounting change, net of tax	(0.21)	-	-	-	(0.21)
<b>(Loss) Earnings per share</b>	<b>\$ (0.48)</b>	<b>\$ 0.25</b>	<b>\$ 0.15</b>	<b>\$ 0.28</b>	<b>\$ 0.20</b>
Diluted					
Income before discontinued operations and cumulative effect of accounting change	\$ 0.23	\$ 0.37	\$ 0.16	\$ 0.28	\$ 1.04
Discontinued Operations:					
Loss from discontinued operations, net of tax	(0.05)	(0.13)	(0.01)	(0.01)	(0.20)
Cumulative effect of accounting change, net of tax	(0.44)	-	-	-	(0.44)
<b>Discontinued Operations, net of tax</b>	<b>(0.49)</b>	<b>(0.13)</b>	<b>(0.01)</b>	<b>(0.01)</b>	<b>(0.64)</b>
(Loss) income before cumulative effect of accounting change on continuing operations	(0.26)	0.24	0.15	0.27	0.40
Cumulative effect of accounting change, net of tax	(0.20)	-	-	-	(0.20)
<b>(Loss) Earnings per share</b>	<b>\$ (0.46)</b>	<b>\$ 0.24</b>	<b>\$ 0.15</b>	<b>\$ 0.27</b>	<b>\$ 0.20</b>

## Forward-Looking Statements

Statements included or incorporated by reference in this Management's Discussion and Analysis of Financial Condition and Results of Operations, elsewhere in this Form 10-K, in the Company's 2003 Annual Report to Shareholders, in the proxy statement for the annual meeting to be held in January 2004, and in the Company's press releases and oral statements made with the approval of an authorized executive officer, which are not historical or current facts are "forward-looking" statements, as defined in the Private Securities Litigation Reform Act of 1995, and are subject to certain risks and uncertainties that could cause actual results to differ materially from historical results and those presently anticipated or projected. The following important factors, among others, could affect the Company's actual results in the future and could cause the Company's actual financial performance to differ materially from that expressed in any forward-looking statements:

- (i) With regard to the Company's new product developments, there may be uncertainties currently unknown to the Company concerning the expected results. In addition, the Company may not be aware of the introduction of new products or product enhancements by its competitors.
- (ii) Possible significant volatility in backlog and/or quarterly operating results may result from the timing of individual large, fixed-price orders in connection with sales of Test segment systems.
- (iii) Order volumes and other operating considerations may be directly or indirectly impacted by economic conditions generally and/or in various geographic areas in which the Company operates.
- (iv) Export controls based on U.S. initiatives and foreign policy, as well as import controls imposed by foreign governments, may cause delays for certain shipments or the rejection of orders by the Company. Such delays could create material fluctuations in quarterly operating results and could have a material adverse effect on results of operations. Local political conditions and/or currency restrictions may also affect foreign revenue.
- (v) Delays in realization of backlog orders may occur due to technical difficulties, export licensing approval, or the customer's preparation of the installation site, any of which can affect the quarterly or annual period when backlog is recognized as revenue and could materially affect the results of any such period.
- (vi) The Company experiences competition on a worldwide basis. Customers may choose to purchase equipment from the Company or from its competitors. For certain of the Company's products, customers may contract with testing laboratories or construct their own testing equipment from commercially available components. Factors that may influence a customer's decision include price, service or required level of technology.
- (vii) The Company is exposed to changes in foreign currency exchange rates, which can affect its results from operations and financial condition.
- (viii) The Company's short-term borrowings carry interest rate risk that is generally related to either LIBOR or the prime rate. The Company has minimal earnings and cash flow exposure due to market risks on its long-term debt obligations as a result of the primarily fixed-rate nature of the debt.

The foregoing list is not exhaustive, and the Company disclaims any obligation to revise any forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.

## Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The Company is exposed to market risks from changes in foreign exchange and interest rates. Additional information relative to these risks is included in Management's Discussion and Analysis of Financial Condition and Results of Operations on page 19 and in Note 1 to the Consolidated Financial Statements included in Item 8 of this Form 10-K.

### Foreign Currency Exchange Rates

The Company is directly exposed to the financial impact of market changes in currency exchange rates on orders, revenue, and net income, as well as on the translated U.S. dollar value of foreign currency-denominated assets and liabilities. This is in addition to the indirect impact of changes in currency exchange rates on interest rates and overall business activity.

Currency gains and losses from the settlement of foreign currency-denominated transactions and changes in the translation of current assets and liabilities denominated in foreign currency are reported as part of "Other income, net" in the Consolidated Statements of Income included in Item 8 of this Form 10-K. Currency gains and losses on specifically identified and hedged transactions, as well as changes in the translated value of long-term assets and liabilities denominated in foreign currency, are reported directly in Other Comprehensive Income on the balance sheet.

For illustrative purposes, the following table restates financial results utilizing currency exchange rates from the prior year to hypothetically isolate the impact of currency on the following financial items:

	(expressed in thousands)		
	2003	2002	2001
<hr/>			
(Increase) Decrease from currency translation on:			
New Orders	\$ (12,245)	\$ 1,213	\$ (2,173)
Revenue	(17,563)	765	(13,247)
Net Income	(1,073)	69	(930)
<hr/>			
Transaction (loss) gain included in "Other income, net"	\$ (740)	\$ 1,974	\$ 1,091

A weakening of the U.S. dollar relative to foreign currencies increases the value of foreign currency-denominated revenue and earnings translated into U.S. dollars. Conversely, strengthening of the U.S. dollar decreases the value of foreign currency-denominated revenue and earnings. During fiscal 2003, the U.S. dollar was generally weaker against other major currencies, declining by approximately 15% against the Euro and 8.9% against the Yen. Gains and losses attributed to translating the financial statements for all non-U.S. subsidiaries are included in the currency translation adjustments.

A hypothetical 10% appreciation in foreign currencies against the U.S. dollar, assuming all other variables were held constant, would have resulted in an increase in fiscal 2003 revenues and asset balances of approximately \$13.2 million. A hypothetical 10% depreciation in foreign currencies against the U.S. dollar, assuming all other variables were held constant, would have resulted in a decrease to fiscal 2003 revenues and asset balances of approximately \$13.2 million.

The Company regularly assesses its exposure to changes in market currency rates and employs certain practices to protect against possible adverse effects of this risk. The Company utilizes forward currency exchange contracts to hedge the U.S. dollar value of foreign currency-denominated transactions, assets and liabilities. See Note 1 to the Consolidated Financial Statements included in Item 8 of this Form 10-K.

## **Interest Rates**

The Company is directly exposed to changes in market interest rates on monetary assets and liabilities such as cash, short-term investments, and debt, as well as indirectly exposed to the impact of market rates on currency rates and overall business activity.

On floating-rate investments, increases and decreases in market interest rates will increase or decrease future interest income, respectively. On floating-rate debt, increases or decreases in market rates will increase or decrease future interest expense, respectively. On fixed-rate investments, increases or decreases in market interest rates do not impact future interest income but may decrease or increase the fair market value of the investment, respectively. For fixed-rate debt or other interest-bearing obligations, increases or decreases in market interest rates do not impact future interest expense, but may decrease or increase the fair market value of the debt, respectively.

At September 27, 2003, the Company had floating-rate cash equivalent and short-term financial investments of \$45.7 million. A hypothetical increase or decrease of 100 basis points, or 1%, in market interest rates could increase or decrease interest income by \$0.5 million per annum. The Company had an insignificant amount of short-term debt outstanding at the end of fiscal 2003 and therefore would not be materially impacted by increases or decreases in market interest rates on interest expense.

The Company had \$68.4 million in fixed-rate financial investments at the end of fiscal 2003. A hypothetical 100 basis point, or 1%, increase or decrease in market rates would increase or decrease the fair market value of these investments by \$0.7 million.

A discount rate of 5.5% and an expected rate of increase in future compensation levels of 3.1% were used in the calculation of the accrued pension liability related to one of the Company's international subsidiary's non-contributory, unfunded retirement plan.

## **Item 8. Financial Statements and Supplementary Data**

The Company's audited financial statements and notes thereto described in Item 15(a) of this report on Form 10-K and appearing on pages F-1 through F-23 of this report are incorporated by reference herein. See also "Quarterly Financial Data" appearing in the Management Discussion and Analysis under Item 7 of this 10-K, which is incorporated herein by reference.

## **Item 9. Changes in and disagreements with accountants on accounting and financial disclosures**

On June 7, 2002, the Company filed a Current Report on Form 8-K reporting that on May 31, 2002, the Company's Board of Directors dismissed Arthur Anderson LLP and engaged KPMG LLP as the Company's independent public accountants for the Company's fiscal year ended September 28, 2002.

## **Item 9A. Controls and Procedures**

The Company's management, including the Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934 (the "1934 Act") as of September 27, 2003. Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective in ensuring that information required to be disclosed by the Company in the reports it files or submits under the 1934 Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

There have been no changes in internal control over financial reporting during the fiscal quarter ended September 27, 2003 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

### Part III

#### **Item 10. Directors and Executive Officers of Registrant**

The required information with respect to the directors of the Registrant and information regarding compliance with Section 16(a) of the Securities Exchange Act of 1934 is incorporated herein by reference to the information set forth under the headings "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" in the Registrant's Proxy Statement for the Annual Meeting of Shareholders scheduled to be held on January 27, 2004. Information regarding the Company's executive officers is contained under Item 1 of this annual report.

#### **Item 11. Executive Compensation**

The information required by this Item is incorporated herein by reference to the information set forth under heading "Executive Compensation" (except as expressly set forth therein) in the Registrant's Proxy Statement for the Annual Meeting of Shareholders scheduled to be held on January 27, 2004.

#### **Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

The information required by this Item is incorporated herein by reference to the information set forth under headings "Security Ownership of Principal Shareholders and Management" and "Equity Compensation Plan Information" in the Registrant's Proxy Statement for the Annual Meeting of Shareholders scheduled to be held on January 27, 2004.

#### **Item 13. Certain Relationships and Related Transactions**

None.

#### **Item 14. Auditor Fees and Services**

The information required by this Item is incorporated by reference to the information set forth under the heading "Approval of Auditors – Audit Fees" in the Registrant's Proxy Statement for the Annual Meeting of Shareholders scheduled to be held on January 27, 2004.

### PART IV

#### **Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K**

The following documents are filed as part of this report:

(a) Financial Statements:

Independent Auditors' Report

Consolidated Balance Sheets - September 27, 2003  
and September 28, 2002

Consolidated Statements of Income for the Years Ended  
September 27, 2003, September 28, 2002, and September  
30, 2001

Consolidated Statements of Shareholders' Investment for  
the Years Ended September 27, 2003, September 28, 2002,  
and September 30, 2001

Consolidated Statements of Cash Flows for the Years  
Ended September 27, 2003, September 28, 2002, and  
September 30, 2001

Notes to Consolidated Financial Statements

Financial Statement Schedule

(b) Reports on Form 8-K:

On July 22, 2003, MTS furnished to the SEC a current report on Form 8-K to report under Item 12 its results of operations for the third fiscal quarter.

On November 20, 2003, MTS furnished to the SEC a current report of Form 8-K to report under Item 12 its results of operations for the fourth fiscal quarter and fiscal year-end.

(c) Exhibits:

<b>Exhibit Number</b>	<b>Description</b>
3.a	Restated and Amended Articles of Incorporation, incorporated by reference from Exhibit 3.a. of Form 10-K for the fiscal year ended September 30, 1996.
3.b	Restated Bylaws (Filed herewith).
10.a	Management Variable Compensation Plan, dated October 2003 (Filed herewith).
10.b	1994 Stock Option Plan, as amended, incorporated herein by reference to Exhibit 10.e. of the Registrant's Form 10-K filed for the fiscal year ended September 30, 1996.
10.c	1997 Stock Option Plan, as amended, incorporated herein by reference to Exhibit 10.p. of the Registrant's Form 10-K filed for the fiscal year ended September 30, 1999.
10.d	2002 Employee Stock Purchase Plan, incorporated herein by reference to Exhibit 99.1 of the Registrant's Form S-8, File No. 333-82582.
10.e	Severance Agreement, dated March 24, 1998, between the Registrant and Mauro G. Togneri, as amended, incorporated herein by reference to Exhibit 10.n. of the Registrant's Form 10-K for the fiscal year ended September 30, 1998.
10.f	Severance Agreement, dated March 16, 1998, between the Registrant and Sidney W. Emery, Jr., incorporated herein by reference to Exhibit 10.r. of the Registrant's Form 10-K filed for the fiscal year ended September 30, 1998.
10.g	Severance Agreement, dated March 14, 1998, between the Registrant and James M. Egerdal incorporated herein by reference to Exhibit 10.ab. of the Registrant's Form 10-K filed for the fiscal year ended September 30, 1998.

- 10.h Severance Agreement dated January 3, 2000, between the Registrant and Kathleen M. Staby incorporated herein by reference to Exhibit 10.x. of the Registrant's Form 10-K filed for the fiscal year ended September 30, 2000.
- 10.i Change in Control Agreement, dated April 17, 2002, between the Registrant and Kathleen M. Staby incorporated herein by reference to Exhibit 10.i of the Registrant's Form 10-Q/A for the fiscal quarter ended June 30, 2002.
- 10.j Change in Control Agreement, dated April 17, 2002, between the Registrant and Mauro G. Togneri incorporated herein by reference to Exhibit 10.j of the Registrant's Form 10-Q/A for the fiscal quarter ended June 30, 2002.
- 10.k Change in Control Agreement, dated April 18, 2002, between the Registrant and Susan E. Knight incorporated herein by reference to Exhibit 10.k of the Registrant's Form 10-Q/A for the fiscal quarter ended June 30, 2002.
- 10.l Change in Control Agreement, dated April 22, 2002, between the Registrant and Sidney W. Emery, Jr. incorporated herein by reference to Exhibit 10.l of the Registrant's Form 10-Q/A for the fiscal quarter ended June 30, 2002.
- 10.m Change in Control Agreement, dated April 22, 2002, between the Registrant and Laura B. Hamilton incorporated herein by reference to Exhibit 10.m of the Registrant's Form 10-Q/A for the fiscal quarter ended June 30, 2002.
- 10.n Change in Control Agreement, dated April 23, 2002, between the Registrant and Larry D. Moulton incorporated herein by reference to Exhibit 10.n of the Registrant's Form 10-Q/A for the fiscal quarter ended June 30, 2002.
- 10.o Change in Control Agreement, dated June 1, 2002, between the Registrant and Donald G. Krantz incorporated herein by reference to Exhibit 10.p of the Registrant's Form 10-Q/A for the fiscal quarter ended June 30, 2002.
- 10.p Change in Control Agreement, dated April 18, 2002, between the Registrant and James M. Egerdal incorporated herein by reference to Exhibit 10.q of the Registrant's Form 10-Q/A for the fiscal quarter ended June 30, 2002.
- 10.q Description of the terms of employment of Susan E. Knight, pursuant to an offer letter, incorporated by reference to Exhibit 10.r of the Registrant's Form 10-Q/A for the fiscal quarter ended December 31, 2001.
- 10.r Description of the terms of employment of Sidney W. Emery, pursuant to an offer letter dated March 3, 1998 incorporated by reference to Exhibit 10.s of the Registrant's Form 10-K for the fiscal year ended September 28, 2002.
- 10.s Change in Control Agreement, dated January 28, 2003, between the Registrant and Douglas E. Marinaro (Filed herewith).

- 10.t Description of terms of employment of Douglas E. Marinaro, pursuant to an offer letter dated November 6, 2002 (Filed herewith).
- 21. Subsidiaries of the Registrant (Filed herewith).
- 23. Consent of Independent Public Accountants (Filed herewith).
- 31.1 Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Filed herewith).
- 31.2 Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Filed herewith).
- 32.1 Certification of the Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Filed herewith).
- 32.2 Certification of the Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Filed herewith).

(d) Financial Statement Schedules:

See accompanying Index to Financial Statements on page F-1.

## SIGNATURES

Pursuant to the requirement 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.

MTS SYSTEMS CORPORATION

By: /s/ Sidney W. Emery, Jr.  
Sidney W. Emery Jr.  
Chairman, President and Chief Executive Officer

Date: December 12, 2003

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

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Sidney W. Emery, Jr.</u> Sidney W. Emery Jr.	Chairman, President and Chief Executive Officer	December 12, 2003
<u>/s/ Susan E. Knight</u> Susan E. Knight	Vice President and Chief Financial Officer	December 12, 2003
<u>/s/ Dugald K. Campbell</u> Dugald K. Campbell	Director	December 12, 2003
<u>/s/ Jean Lou Chameau</u> Jean Lou Chameau	Director	December 12, 2003
<u>/s/ Merlin E. Dewing</u> Merlin E. Dewing	Director	December 12, 2003
<u>/s/ Brendan Hegarty</u> Brendan Hegarty	Director	December 12, 2003
<u>/s/ Barb J. Samardzich</u> Barb J. Samardzich	Director	December 12, 2003
<u>/s/ Linda Hall Whitman</u> Linda Hall Whitman	Director	December 12, 2003

## MTS Systems Corporation and Subsidiaries

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II	Summary of Consolidated Allowances For Doubtful Accounts and Restructuring Reserves	S-1

## Independent Auditors' Report

### The Board of Directors and Shareholders MTS Systems Corporation:

We have audited the accompanying consolidated balance sheets of MTS Systems Corporation and subsidiaries as of September 27, 2003 and September 28, 2002 and the related consolidated statements of income, shareholders' investment and cash flows for each of the fiscal years in the three-year period ended September 27, 2003. In connection with our audits of the consolidated financial statements, we also have audited the financial statement schedule as listed in the accompanying index. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of MTS Systems Corporation and subsidiaries as of September 27, 2003 and September 28, 2002 and the results of their operations and their cash flows for each of the fiscal years in the three-year period ended September 27, 2003, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for revenue recognition in fiscal year 2001. Also as discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for goodwill in fiscal year 2002.

/S/ KPMG LLP

Minneapolis, Minnesota,  
November 14, 2003

## Consolidated Balance Sheets

(September 27 and September 28, respectively)

Assets	2003	2002
	(expressed in thousands)	
<b>Current Assets:</b>		
Cash and cash equivalents	\$ 74,183	\$ 62,456
Short-term investments	58,560	35,094
Accounts receivable, net of allowance for doubtful accounts of \$1,783 and \$2,432, respectively	59,637	59,943
Unbilled contracts and retainage receivable	21,939	32,276
Inventories	34,709	40,245
Prepaid expenses	3,928	5,018
Current deferred tax asset	9,682	8,739
Other current assets	2,075	19
Assets of discontinued operations	-	15,311
<b>Total current assets</b>	<b>264,713</b>	<b>259,101</b>
<b>Property and Equipment:</b>		
Land	3,247	3,247
Buildings and improvements	47,031	44,723
Machinery and equipment	84,834	79,679
Accumulated depreciation	(78,908)	(70,765)
<b>Total property and equipment, net</b>	<b>56,204</b>	<b>56,884</b>
Goodwill	4,383	4,268
Other assets	2,562	3,725
Non-current deferred tax asset	2,516	1,593
<b>Total assets</b>	<b>\$ 330,378</b>	<b>\$ 325,571</b>
<b>Liabilities and Shareholders' Investment</b>		
<b>Current Liabilities:</b>		
Notes payable to banks	\$ 383	\$ 598
Current maturities of long-term debt	6,839	8,605
Accounts payable	10,483	12,688
Accrued payroll-related costs	24,742	20,421
Advance payments from customers	40,456	37,650
Accrued warranty costs	4,862	4,482
Accrued income taxes	5,571	11,120
Other accrued liabilities	15,838	15,399
Liabilities of discontinued operations	-	1,793
<b>Total current liabilities</b>	<b>109,174</b>	<b>112,756</b>
Deferred tax liability	6,265	1,519
Long-term debt, less current maturities	30,487	42,789
Other long-term liabilities	8,346	6,242
<b>Total liabilities</b>	<b>154,272</b>	<b>163,306</b>
<b>Shareholders' Investment:</b>		
Common stock, 25¢ par value; 64,000 shares authorized: 20,720 and 21,208 shares issued and outstanding	5,180	5,302
Additional paid-in capital	1,534	9,770
Retained earnings	162,076	146,857
Accumulated other comprehensive income	7,316	336
<b>Total shareholders' investment</b>	<b>176,106</b>	<b>162,265</b>
<b>Total liabilities and shareholders' investment</b>	<b>\$ 330,378</b>	<b>\$ 325,571</b>

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

## Consolidated Statements of Income

(For the Years Ended September 27, September 28, and September 30, respectively)

	2003	2002	2001
	(expressed in thousands except per share data)		
<b>Revenue</b>	\$ 340,087	\$ 327,185	\$ 355,859
<b>Cost of Sales</b>	212,790	201,362	224,545
<b>Gross Profit</b>	127,297	125,823	131,314
<b>Operating Expenses:</b>			
Selling	52,210	51,120	54,072
General and administrative	26,388	27,924	32,173
Research and development	15,583	15,491	18,659
<b>Income From Operations</b>	33,116	31,288	26,410
Interest expense	(3,621)	(4,203)	(5,063)
Interest income	2,169	1,201	372
Gain on sale of investment	-	2,630	-
Other income, net	852	1,967	2,125
<b>Income Before Income Taxes, Discontinued Operations, and Cumulative Effect of Accounting Changes</b>	32,516	32,883	23,844
Provision for Income Taxes	11,225	10,613	8,288
<b>Income Before Discontinued Operations and Cumulative Effect of Accounting Changes</b>	21,291	22,270	15,556
<b>Discontinued Operations:</b>			
Income (loss) from discontinued operations, net of tax	199	(4,267)	(2,450)
Loss on sale of discontinued businesses, net of tax	(1,177)	-	-
Cumulative effect of accounting change, net of tax	-	(9,198)	-
<b>Loss from discontinued operations, net of tax</b>	(978)	(13,465)	(2,450)
<b>Income Before Cumulative Effect of Accounting Changes on Continuing Operations</b>	20,313	8,805	13,106
Cumulative effect of accounting changes on continuing operations, net of tax	-	(4,523)	(2,492)
<b>Net Income</b>	\$ 20,313	\$ 4,282	\$ 10,614
<b>Earnings Per Share</b>			
Basic:			
Income Before Discontinued Operations and Cumulative Effect of Accounting Changes	\$ 1.01	\$ 1.06	\$ 0.75
Discontinued Operations:			
Income (loss) from discontinued operations, net of tax	0.01	(0.20)	(0.12)
Loss on sale of discontinued businesses, net of tax	(0.06)	-	-
Cumulative effect of accounting change, net of tax	-	(0.44)	-
<b>Loss from Discontinued Operations, net of tax</b>	(0.05)	(0.64)	(0.12)
Income Before Cumulative Effect of Accounting Change on Continuing Operations	\$ 0.96	\$ 0.42	\$ 0.63
Cumulative effect of accounting changes on continuing operations, net of tax	-	(0.22)	(0.12)
<b>Earnings Per Share</b>	\$ 0.96	\$ 0.20	\$ 0.51
Diluted:			
Income Before Discontinued Operations and Cumulative Effect of Accounting Changes	1.00	1.04	0.74
Discontinued Operations:			
Income (loss) from discontinued operations, net of tax	0.01	(0.20)	(0.12)
Loss on sale of discontinued businesses, net of tax	(0.06)	-	-
Cumulative effect of accounting change, net of tax	-	(0.43)	-
<b>Loss from Discontinued Operations, net of tax</b>	(0.05)	(0.63)	(0.12)
Income Before Cumulative Effect of Accounting Changes on Continuing Operations	0.95	0.41	0.62
Cumulative effect of accounting changes on continuing operations, net of tax	-	(0.21)	(0.12)
<b>Earnings Per Share</b>	\$ 0.95	\$ 0.20	\$ 0.50

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

## Consolidated Statements of Shareholders' Investment

(For the Years Ended September 27, September 28, and September 30, respectively)

	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated	Total Shareholders' Investment
	Shares Issued	Amount			Other Comprehensive Income (Loss)	
<b>Balance, September 30, 2000</b>	20,748	\$ 5,187	\$ 7,072	\$ 142,009	\$ (639)	\$ 153,629
Net income	-	-	-	10,614	-	10,614
Foreign currency translation	-	-	-	-	(391)	(391)
Derivative instruments	-	-	-	-	115	115
Unrealized loss on investment, net of tax	-	-	-	-	(283)	(283)
Total comprehensive income	-	-	-	10,614	(559)	10,055
Exercise of stock options	410	103	3,275	-	-	3,378
Tax benefit from exercise of stock options	-	-	368	-	-	368
Issuance for employee stock purchase plan	150	38	917	-	-	955
Common stock repurchased and retired	(264)	(67)	(2,592)	-	-	(2,659)
Cash dividends, \$0.24 per share	-	-	-	(4,988)	-	(4,988)
<b>Balance, September 30, 2001</b>	21,044	5,261	9,040	147,635	(1,198)	160,738
Net income	-	-	-	4,282	-	4,282
Foreign currency translation	-	-	-	-	1,419	1,419
Derivative instruments	-	-	-	-	22	22
Unrealized gain on investment, net of tax	-	-	-	-	93	93
Total comprehensive income	-	-	-	4,282	1,534	5,816
Exercise of stock options	214	54	1,364	-	-	1,418
Tax benefit from exercise of stock options	-	-	182	-	-	182
Issuance for employee stock purchase plan	96	24	677	-	-	701
Common stock repurchased and retired	(146)	(37)	(1,493)	-	-	(1,530)
Cash dividends, \$0.24 per share	-	-	-	(5,060)	-	(5,060)
<b>Balance, September 28, 2002</b>	21,208	5,302	9,770	146,857	336	162,265
Net income	-	-	-	20,313	-	20,313
Foreign currency translation	-	-	-	-	7,284	7,284
Derivative instruments	-	-	-	-	(304)	(304)
Total comprehensive income	-	-	-	20,313	6,980	27,293
Exercise of stock options	681	170	6,004	-	-	6,174
Tax benefit from exercise of stock options	-	-	1,127	-	-	1,127
Issuance for employee stock purchase plan	97	24	803	-	-	827
Common stock repurchased and retired	(1,266)	(316)	(16,170)	-	-	(16,486)
Cash dividends, \$0.24 per share	-	-	-	(5,094)	-	(5,094)
<b>Balance, September 27, 2003</b>	20,720	\$ 5,180	\$ 1,534	\$ 162,076	\$ 7,316	\$ 176,106

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

## Consolidated Statements of Cash Flows

(For the Years Ended September 27, September 28, and September 30, respectively)

	2003	2002	2001
<b>Cash flows from Operating Activities:</b>			
Net income	\$ 20,313	\$ 4,282	\$ 10,614
Adjustments to reconcile net income to net cash provided by operating activities:			
Non-cash cumulative effect of accounting change on continuing operations	-	4,523	2,492
Non-cash cumulative effect of accounting change on discontinued operations	-	9,198	-
(Income) loss from discontinued operations	(199)	4,267	2,450
Loss on sale of discontinued businesses	1,177	-	-
Gain on sale of investment	-	(2,630)	-
Depreciation and amortization	9,772	9,971	12,180
Deferred income taxes	2,354	(3,563)	(2,452)
Bad debt provision	184	712	673
Changes in operating assets and liabilities, net of effects of businesses divested:			
Accounts, unbilled contracts, and retainage receivables	15,536	37,590	(4,265)
Inventories	8,335	11,104	(1,028)
Prepaid expenses	1,232	1,038	1,715
Other assets	(1,616)	2,023	(678)
Accounts payable	(2,576)	(796)	(6,364)
Accrued payroll-related costs	4,274	(12,170)	6,449
Advance payments from customers	154	4,976	9,759
Accrued warranty costs	185	113	47
Other current liabilities	(3,783)	13,702	6,509
<b>Net Cash Provided by Operating Activities</b>	<b>55,342</b>	<b>84,340</b>	<b>38,101</b>
<b>Cash Flows from Investing Activities:</b>			
Additions to property and equipment	(6,573)	(5,148)	(8,055)
Proceeds from maturity of short-term investments	61,144	-	-
Proceeds from sale of short-term investments	-	4,920	-
Purchases of short-term investments	(84,610)	(35,094)	-
Net proceeds from sale of businesses	12,621	-	-
<b>Net Cash Used in Investing Activities</b>	<b>(17,418)</b>	<b>(35,322)</b>	<b>(8,055)</b>
<b>Cash Flows from Financing Activities:</b>			
Net (repayments) borrowings under notes payable to banks	(264)	187	(11,452)
Repayments of long-term debt	(15,093)	(7,822)	(5,544)
Proceeds from issuance of long-term debt	-	589	423
Cash dividends	(5,074)	(5,067)	(4,988)
Proceeds from exercise of stock options and employee stock purchase plan	7,001	2,119	4,333
Payments to purchase and retire common stock	(16,486)	(1,530)	(2,659)
<b>Net Cash Used in Financing Activities</b>	<b>(29,916)</b>	<b>(11,524)</b>	<b>(19,887)</b>
<b>Net Cash Provided (Used) by Discontinued Operations</b>	<b>183</b>	<b>7,407</b>	<b>(648)</b>
<b>Effect of Exchange Rate Changes on Cash and Cash Equivalents</b>	<b>3,536</b>	<b>219</b>	<b>(96)</b>
<b>Cash and Cash Equivalents</b>			
Increase during the year	11,727	45,120	9,415
Balance, beginning of year	62,456	17,336	7,921
Balance, end of year	\$ 74,183	\$ 62,456	\$ 17,336
<b>Supplemental Disclosures of Cash Flows Information:</b>			
Cash paid during the year for:			
Interest	\$ 3,504	\$ 3,951	\$ 5,724
Income taxes	12,356	5,050	6,516

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

# Notes to Consolidated Financial Statements

## 1. Summary of Significant Accounting Policies:

### Fiscal Year

Effective with fiscal year 2002, the Company changed its fiscal year end to the Saturday closest to September 30. For the year ended September 27, 2003 and September 28, 2002, the Company's fiscal year consisted of 52 weeks. This change had no material impact on comparability of the Company's financial statements.

### Consolidation

The consolidated financial statements include the accounts of MTS Systems Corporation and its wholly and majority owned subsidiaries (the "Company"). Significant intercompany balances and transactions have been eliminated.

### Revenue Recognition

The Company implemented the revenue recognition principles of Staff Accounting Bulletin ("SAB") No. 101, "Revenue Recognition in Financial Statements," as of October 1, 2000. The cumulative effect adjustment of the change in accounting for all periods through September 30, 2000 was a reduction in net income of \$2.5 million (net of income taxes of \$1.6 million), or \$0.12 per diluted share, which was accounted for as a change to the financial results for the first quarter of fiscal 2001. During the fiscal years ended September 28, 2002 and September 30, 2001 the Company recognized \$0.4 million and \$10.0 million of revenues, respectively, which were previously recognized prior to the Company's adoption of SAB 101.

For orders that are manufactured and delivered in less than six months with routine installations and no special acceptance protocol, revenue is recognized when systems are shipped and title has passed to the customer, less the greater of the fair value associated with installation or the amount of consideration that is contingent upon installation, which is deferred until customer acceptance. In cases where special acceptance protocols exist, the Company recognizes revenue upon the completion of installation and fulfillment of obligations specific to the terms of the customer's contract. Revenue on contracts requiring longer delivery periods, generally longer than six months (long-term contracts), is recognized using the percentage-of-completion method based on the cost incurred to date relative to estimated total cost of the contract. In most cases, orders with complex installations and/or unusual acceptance protocols involve long-term contracts for custom systems that follow the percentage-of-completion method of revenue recognition through customer acceptance.

The Company enters into long-term contracts for customized equipment sold to its customers. Under the terms of such contracts, revenue recognized using the percentage-of-completion method may not be invoiced until completion of contractual milestones, upon shipment of the equipment, or upon installation and acceptance by the customer. Unbilled amounts for these contracts appear in the Consolidated Balance Sheets as Unbilled Contracts and Retainage Receivable.

Revenue for services is recognized as the service is performed and ratably over a defined contractual period for service maintenance contracts.

See also "Recent Accounting Pronouncements" below.

### Foreign Currency Translation

The financial position and results of operations of the Company's foreign subsidiaries are measured using local currency as the functional currency. Assets and liabilities are translated using period-end exchange rates and statements of income are translated using average exchange rates for the fiscal year, with the resulting translation adjustments recorded as a separate component of shareholders' investment. The Company recorded gains on foreign currency translation in Comprehensive Income of \$7.3 million and \$1.4 million for fiscal 2003 and fiscal 2002, respectively, and a loss on foreign currency translation of \$0.4 million for fiscal 2001.

### Cash Equivalents

Cash equivalents represent short-term, highly liquid investments maturing in three months or less at the time of purchase and are recorded at cost, which approximates fair value. Cash is invested in a money market fund, highly rated tax-exempt securities, obligations of the United States government and its agencies, and highly rated corporate obligations.

### Short-Term Investments

The Company classifies its debt securities as either held-to-maturity or available-for-sale investments. Held-to-maturity securities are carried at amortized cost, which approximates market value. All investments in available-for-sale securities are carried at fair value and unrealized gains and losses are reported as a component of Other Comprehensive Income. There were no substantive unrealized gains or losses from the investment in held-to-maturity and available-for-sale securities as of the fiscal years ended September 27, 2003 and September 28, 2002. All held-to-maturity securities mature within the next twelve months, and the available-for-sale securities mature in fiscal years 2005 through 2011. At September 27, 2003 and September 28, 2002, the Company had no investments in equity securities. Any future investments in equity securities would be classified as available-for-sale. The investments in held-to-maturity securities mature within twelve months, and the investments in available-for-sale securities mature after two years through eight years.

Short-term investments at September 27, 2003 and September 28, 2002 consisted of the following:

	2003	2002
	(expressed in thousands)	
Held-to-maturity:		
U. S. government obligations	\$ 1,997	\$ 8,000
Bank deposits	3,909	2,000
Corporate obligations	29,020	23,094
Total held-to-maturity	34,926	33,094
Available-for-sale:		
U. S. government obligations	23,634	2,000
Total available-for-sale	23,634	2,000
Total short-term investments	\$ 58,560	\$ 35,094

### Accounts Receivable and Long-Term Contracts

The Company grants credit to its customers but generally does not require collateral or other security from domestic customers. When deemed appropriate, receivables from customers located outside the United States are supported by letters of credit from financial institutions. The Company enters into long-term contracts for customized equipment sold to its customers. Under the terms of such contracts, revenue recognized using the percentage-of-completion method may be invoiced upon completion of contractual milestones, shipment to the customer, or installation and acceptance by the customer. Unbilled or retained amounts relating to these contracts are reflected as Unbilled Contracts and Retainage Receivable in the accompanying Consolidated Balance Sheets. Amounts unbilled or retained at September 27, 2003 are expected to be invoiced during fiscal 2004.

### Warranty Obligations

Sales of the Company's products and systems are subject to limited warranty guarantees that are included in customer contracts. For sales that include installation services, warranty guarantees typically extend for a period of twelve months from the date of either shipment or acceptance. Product guarantees typically extend for a period of twenty-four months from the date of purchase. Under the terms of these warranties, the Company is obligated to repair or replace any components or assemblies it deems defective due to workmanship or materials. The Company reserves the right to reject warranty claims where it determines that failure is due to normal wear, customer modifications, improper maintenance, or misuse. The Company records warranty provisions monthly based on an estimated warranty expense percentage applied to current period revenue. The percentage applied reflects historical warranty incidence over the preceding twelve-month period. Both the experience percentage

and the warranty liability are evaluated on an ongoing basis for adequacy. Warranty provisions and claims for the years ended September 27, 2003 and September 28, 2002 were as follows:

	2003	2002
	(expressed in thousands)	
Beginning balance	\$ 4,482	\$ 4,324
Warranty provisions	5,927	4,443
Warranty claims	(5,850)	(4,378)
Translation adjustment	303	93
Ending balance	\$ 4,862	\$ 4,482

### Research and Development

Research and product development costs associated with new products are charged to operations as incurred.

### Inventories

Inventories consist of material, labor, and overhead costs and are stated at the lower of cost or market value, determined under the first-in, first-out accounting method. Inventories at September 27, 2003 and September 28, 2002 were as follows:

	2003	2002
	(expressed in thousands)	
Customer projects in various stages of completion	\$ 12,260	\$ 14,331
Components, assemblies and parts	22,449	25,914
Total	\$ 34,709	\$ 40,245

### Property and Equipment

Property and equipment is stated at cost. Additions, replacements and improvements are capitalized at cost, while maintenance and repairs are charged to operations as incurred. Depreciation is provided over the following estimated useful lives of the property:

Buildings and improvements: 10 to 40 years.

Machinery and equipment: 3 to 15 years.

Building and equipment additions are generally depreciated on a straight-line basis for financial reporting purposes and on an accelerated basis for income tax reporting purposes.

The Company reviews the carrying value of long-lived assets when events or changes in circumstances such as market value, asset utilization, physical change, legal factors, or other matters indicate that the carrying value may not be recoverable. When the review indicates that the carrying value of the asset or group of assets representing the lowest level of identifiable cash flows exceeds the sum of the expected future cash flows (undiscounted and without interest charges), the Company recognizes an asset write-down charge against operations. The amount of the impairment loss is the amount by which the carrying value exceeds the fair value of the impaired asset or group of assets.

### Derivative Financial Instruments

The Company periodically enters into forward currency exchange contracts with financial institutions to hedge the U.S. dollar value of estimated cash flows from foreign currency transactions. These contracts generally mature within one year and are designed to limit the Company's exposure to fluctuations in currency exchange rates. On the date the forward exchange contract is established, it is designated as a foreign currency cash flow hedge. Subsequent changes in the fair value of a contract are recorded in Other Comprehensive Income on the Balance Sheet until they are recognized in earnings at the time the

forecasted transaction occurs. The Company formally documents all relationships between hedging contracts and hedged transactions, as well as its objectives for undertaking the hedges. The Company assesses, both at the hedges' inception and on an ongoing basis, whether the contracts that are used in hedging transactions are effective in offsetting changes in cash flows of hedged items. When it is determined that a forward currency contract is not highly effective as a hedge, the Company discontinues hedge accounting prospectively. When hedge accounting is discontinued, any related gains or losses that were accumulated in Other Comprehensive Income on the Balance Sheet will be recognized immediately in earnings, and any future changes in the fair value of the contract will be recognized in current period earnings.

The Company also uses forward currency exchange contracts to hedge the U.S. dollar value of specific assets and liabilities on the balance sheet denominated in foreign currencies. The related gains and losses are included in Other Income on the income statement. Results of these contracts offset the gains and losses related to valuations of foreign currency-denominated assets and liabilities on the balance sheet. The Company does not use derivative financial instruments for speculative or trading purposes.

At September 27, 2003 and September 28, 2002 the Company had outstanding foreign currency forward contracts with U.S. dollar notional equivalent amounts of \$21.0 million and \$36.5 million, respectively. At September 27, 2003 and September 28, 2002, the fair value of the foreign currency forward contracts was (\$0.8) million and (\$0.1) million, respectively. The amount recognized in earnings as a result of the ineffectiveness of cash flow hedges was not material for fiscal years 2003, 2002 and 2001. At September 27, 2003, approximately (\$0.9) million was projected to be reclassified from Other Comprehensive Income into earnings in the next 12 months. At September 28, 2002, approximately (\$0.1) million was projected to be reclassified from Other Comprehensive Income into earnings in the next 12 months. The maximum original maturity of any derivative was 1.75 years at September 27, 2003 and 1.3 years at September 28, 2002.

### **Goodwill**

Goodwill represents the excess of acquisition costs over the fair value of the net assets of businesses acquired and, prior to fiscal 2002, was amortized on a straight-line basis over periods up to 40 years. In July 2001 the Financial Accounting Standards Board issued two new statements, Statement of Financial Accounting Standard ("SFAS") No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets." Under SFAS No. 141, all business combinations after June 30, 2001 are accounted for under the purchase method. SFAS No. 142 includes requirements to test goodwill for impairment using a fair value approach, rather than amortizing the cost of goodwill over future periods. See note 3 to the Consolidated Financial Statements for additional information regarding the impact of SFAS No. 141 and SFAS No. 142.

### **Other Assets**

Other assets primarily consist of patents and other intellectual property. Other intangible assets are amortized on a straight-line basis over the expected period benefited by future cash inflows, up to 25 years. The Company periodically evaluates the recoverability of the carrying amount of other intangible assets when events or changes in circumstances indicate the carrying amount of an asset may not be fully recoverable. An impairment is assessed when the undiscounted expected future cash flows derived from an asset are less than its carrying amount. Impairment losses are measured as the amount by which the carrying value of an asset exceeds its fair value and are recognized in operating earnings. The Company also continually evaluates the estimated useful lives of all intangible assets and periodically revises such estimates based on current events.

### **Income Taxes**

Deferred tax assets and liabilities are recognized for the expected future tax consequences attributed to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to reverse.

## Earnings Per Share

Basic net earnings per share is computed by dividing net earnings by the weighted average number of common shares outstanding during the applicable periods. Diluted net earnings per share includes the potentially dilutive effect of common shares issued in connection with outstanding stock options using the treasury stock method. Options to acquire 1.4 million, 1.7 million, and 1.7 million weighted common shares have been excluded from the diluted weighted shares outstanding calculation for fiscal years 2003, 2002 and 2001, respectively, because the exercise price was more than the weighted average market value. The dilutive effect of common shares issued in connection with outstanding stock options is determined based on income before discontinued operations and cumulative effect of accounting changes. A reconciliation of these amounts is as follows:

	2003	2002	2001
	(expressed in thousands except per share data)		
Income before discontinued operations and cumulative effect of accounting changes	\$ 21,291	\$ 22,270	\$ 15,556
Discontinued operations:			
Income (loss) from discontinued operations, net of tax	199	(4,267)	(2,450)
Loss on sale of discontinued businesses, net of tax	(1,177)	-	-
Cumulative effect of accounting change, net of tax	-	(9,198)	-
Loss from discontinued operations, net of tax	(978)	(13,465)	(2,450)
Income before cumulative effect of accounting changes on continuing operations	20,313	8,805	13,106
Cumulative effect of accounting changes on continuing operations, net of tax	-	(4,523)	(2,492)
Net income	\$ 20,313	\$ 4,282	\$ 10,614
Weighted average common shares outstanding	21,119	21,100	20,751
Dilutive potential common shares	355	333	319
Total dilutive common shares	21,474	21,433	21,070
Earnings per share:			
Basic:			
Income before discontinued operations and cumulative effect of accounting changes	\$ 1.01	\$ 1.06	\$ 0.75
Discontinued operations:			
Income (loss) from discontinued operations, net of tax	0.01	(0.20)	(0.12)
Loss on sale of discontinued businesses, net of tax	(0.06)	-	-
Cumulative effect of accounting change	-	(0.44)	-
Loss from discontinued operations, net of tax	(0.05)	(0.64)	(0.12)
Income before cumulative effect of accounting changes on continuing operations	0.96	0.42	0.63
Cumulative effect of accounting changes on continuing operations, net of tax	-	(0.22)	(0.12)
Earnings per share	\$ 0.96	\$ 0.20	\$ 0.51
Diluted:			
Income before discontinued operations and cumulative effect of accounting changes	\$ 1.00	\$ 1.04	\$ 0.74
Discontinued operations:			
Income (loss) from discontinued operations, net of tax	0.01	(0.20)	(0.12)

Loss on sale of discontinued businesses, net of tax	(0.06)	-	-
Cumulative effect of accounting change	-	(0.43)	-
Loss from discontinued operations, net of tax	(0.05)	(0.63)	(0.12)
Income before cumulative effect of accounting changes on continuing operations	0.95	0.41	0.62
Cumulative effect of accounting changes on continuing operations, net of tax	-	(0.21)	(0.12)
Earnings per share	\$ 0.95	\$ 0.20	\$ 0.50

### Stock-Based Compensation

The Company elects to follow Accounting Principles Board Opinion No. 25, ("APB 25"), "Accounting for Stock Issued to Employees," in accounting for its employee stock-based compensation. Under APB 25, no compensation expense for stock-based compensation is recognized for shares granted at or above market value. Had the Company determined compensation cost based on the fair value at the grant date for stock options and the fair value of the discount related to the employee stock purchase plan under Statement of Financial Standards No. 123 ("SFAS 123"), the Company's net income would have been reported as shown below:

	2003	2002	2001
Net Income			
As Reported	\$ 20,313	\$ 4,282	\$ 10,614
Deduct: fair value of employee stock-based compensation expense, net of tax	(2,865)	(2,678)	(2,390)
Pro Forma	\$ 17,448	\$ 1,604	\$ 8,224
Basic Earnings Per Share			
As Reported	\$ 0.96	\$ 0.20	\$ 0.51
Pro Forma	0.83	0.08	0.40
Diluted Earnings Per Share			
As Reported	\$ 0.95	\$ 0.20	\$ 0.50
Pro Forma	0.81	0.07	0.39

See Note 7 to the Consolidated Financial Statements for additional information regarding stock-based compensation.

### Comprehensive Income (Loss)

Comprehensive Income (Loss) consists of net income, unrealized gains or losses on investments classified as available-for-sale, derivative instrument gains or losses, and foreign currency translation adjustments and is presented as a component of Shareholders' Investment. There were no substantive unrealized gains or losses from available-for-sale securities as of September 28, 2002 and for the fiscal year ended September 27, 2003.

The accumulated balances for each component of accumulated Other Comprehensive Income (Loss) are as follows:

	Derivative Financial Instrument Unrealized Gain (Loss)	Unrealized Gain (Loss) on Investments	Foreign Currency Translation Adjustment	Total Accumulated Other Comprehensive Income (Loss)
(expressed in thousands)				
Balances at September 30, 2001	\$ (29)	\$ (146)	\$ (1,023)	\$ (1,198)
Foreign currency rate charges	-	-	1,419	1,419
Change in unrealized gain (loss), net of tax	583	-	-	583
Change in unrealized gain (loss), net of tax of \$1.1 million	-	1,750	-	1,750
Realized (gain) loss, net of tax	(614)	-	-	(614)
Realized (gain) loss, net of tax of \$1.0 million	-	(1,604)	-	(1,604)
Balances at September 28, 2002	(60)	-	396	336
Foreign currency rate charges	-	-	7,284	7,284
Change in unrealized gain (loss), net of tax	(672)	-	-	(672)
Realized (gain) loss, net of tax	368	-	-	368
Balances at September 27, 2003	\$ (364)	\$ -	\$ 7,680	\$ 7,316

### Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and reported amounts of revenue and expenses during the reporting period. Ultimate results could differ from those estimates. The Company frequently undertakes significant technological innovation on certain of its long-term contracts involving performance risk that may result in delayed delivery of product and/or recognition of revenue and gross profit variation resulting from changes in the estimate of the ultimate cost of such contracts.

### Recent Accounting Pronouncements

In November 2002, the Emerging Issues Task Force finalized its tentative consensus on EITF Issue 00-21, "Revenue Arrangements with Multiple Deliverables," which provides guidance on the timing of revenue recognition for sales undertakings to deliver more than one product or service. The Company adopted EITF 00-21 on transactions occurring in fiscal periods beginning after June 15, 2003, as required.

In light of EITF 00-21, orders that are manufactured and delivered in less than six months with routine installations and no special acceptance protocol are considered to involve separable elements. Sufficient evidence of fair value of these elements exists to allow revenue recognition for these systems upon shipment, less the greater of the fair value associated with installation and training (if applicable) or the amount of revenue that is deemed contingent upon these elements, which is deferred until customer acceptance. In cases where special acceptance protocols exist, installation and training are not considered to be separable from the other elements of the arrangement. Accordingly, revenue for these systems is recognized upon the completion of installation and fulfillment of obligations specific to the terms of the arrangement.

For contracts that involve delivery periods generally longer than six months, due to the complexity of installation and acceptance terms, the design, manufacture and installation elements of such arrangements, in aggregate, fall within the scope of accounting literature prescribing percentage-of-completion accounting through customer acceptance. However, in light of EITF 00-21, when elements that would not separately fall within the scope of accounting literature prescribing percentage-of-

completion accounting are included in an arrangement, the fair value of these elements is separated from the arrangement and accounted for as such services are provided.

The adoption of EITF 00-21 did not have a material effect on the Company's fiscal 2003 financial statements.

In April 2003, the FASB issued Statement of Financial Accounting Standard ("SFAS") No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging," which amends and clarifies financial accounting and reporting for derivative instruments. SFAS No. 149 is effective for contracts entered into or modified after June 30, 2003 and for hedging relationships designated after June 30, 2003. The Company has concluded there will be no material impact of its adoption.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity," which establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. SFAS No. 150 was adopted by the Company in fiscal 2003. The Company does not have any activities that are subject to the requirements of SFAS No. 150.

### Reclassifications

Certain amounts included in the prior year consolidated financial statements, including the impact of the Company's discontinued operations, have been reclassified in prior years to conform to the current year presentation. These reclassifications had no effect on previously reported Shareholders' Investment or Net Income.

### 2. Discontinued Operations:

During the second and third quarters of fiscal 2003, the Company sold its Automation division, which was based in New Ulm, Minnesota and also maintained operations in Montgomeryville, Pennsylvania and Freiburg and Straslund, Germany. On March 31, 2003, the Company sold substantially all of the net assets and intellectual property associated with the Automation division's gradient amplifier product line. On April 11, 2003, the Company sold all the remaining net assets of the North American Automation division, based in New Ulm, Minnesota and on April 30, 2003 sold, to the same buyer, its stock in the Automation division's German operations, which completed the sale of the Company's entire Automation division and its exit from the motor and amplifier business. In March 2003, the Company discontinued the custom military business of its Automation division. As a result of the sales, the Company recorded a loss of \$1.2 million, net of taxes.

The Automation division was historically included in the Company's Industrial segment for financial reporting, and the results of the operations of the Automation division have been reported as discontinued operations.

Following are the operating results of the discontinued operations included in the Company's results for the respective periods:

	2003	2002	2001
	(expressed in thousands)		
Revenue	\$ 15,756	\$ 28,686	\$ 41,500
Income (loss) on discontinued operations before taxes, loss on sale and cumulative effect of accounting change	\$ 353	\$ (6,961)	\$ (4,013)

At September 28, 2002, assets of discontinued operations consisted primarily of inventory, accounts receivable and property and equipment of \$6.6 million, \$4.7 million and \$2.7 million, respectively, and liabilities of discontinued operations of \$1.8 million consisted primarily of accounts payable and accrued payroll and related costs.

### 3. Goodwill and Other Intangible Assets:

Upon the Company's adoption of Statement of Financial Accounting Standard ("SFAS") No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets," effective October 1, 2001, annual goodwill amortization of \$2.2 million ceased. Under SFAS No. 142, the Company assessed the recoverability of goodwill using a discounted cash flow methodology. An evaluation of the Automation division (reported as discontinued operations) and Vehicle Testing Systems reporting unit (included in the Company's Test segment) indicated that \$10.7 million and \$7.3 million of goodwill, respectively, was impaired. The performance in these acquired businesses did not meet management's original expectations due to ongoing weakness in the worldwide industrial manufacturing and ground vehicle markets. The Company's adoption of SFAS No. 142 resulted in a non-cash transition charge to income in the first quarter of its fiscal year ended September 28, 2002 of \$13.7 million, or (\$.64) per diluted share, for impairment of goodwill, net of tax. The Company determined there was no impairment of its goodwill at September 27, 2003. Goodwill activity, inclusive of activity associated with discontinued operations, for each of the fiscal years in the three-year-period ending September 27, 2003 was:

<b>Goodwill</b>					
(expressed in thousands)					
Year	Beginning Balance	Amortization	Write-off	Translation	Ending Balance
2001	\$ 24,558	\$ (3,023)	\$ -	\$ 1,010	\$ 22,545
2002	22,545	-	(18,038)	(239)	4,268
2003	4,268	-	-	115	4,383

Annual amortization of other intangible assets was \$1.1 million in both fiscal 2003 and 2002. The anticipated amortization expense related to other intangible assets for the next five fiscal years is as follows:

	Fiscal Year				
	2004	2005	2006	2007	2008
Amortization of intangible assets	\$ 517	\$ 517	\$ 287	\$ 3	\$ 3

For the fiscal year ended September 30, 2001, goodwill amortization, adjusted net income, and basic and diluted earnings per share are as follows:

	2001	
	(expressed in thousands)	
Income before cumulative effect of accounting change on continuing operations	\$	13,106
Add back: Goodwill amortization, net of tax		1,489
Adjusted net income before cumulative effect of accounting change on continuing operations		14,595
Cumulative effect of accounting change, net of tax		(2,492)
Adjusted net income	\$	12,103
Basic earnings per share before cumulative effect of accounting change on continuing operations	\$	0.63
Add back: Goodwill amortization, net of tax		0.07

Basic adjusted earnings per share before cumulative effect of accounting change on continuing operations	0.70
Cumulative effect of accounting change, net of tax	(0.12)
Adjusted earnings per share	<u>\$ 0.58</u>
Diluted earnings per share before cumulative effect of accounting change on continuing operations	\$ 0.62
Add back: Goodwill amortization, net of tax	<u>0.07</u>
Diluted adjusted earnings per share before cumulative effect of accounting change on continuing operations	0.69
Cumulative effect of accounting change, net of tax	(0.12)
Adjusted earnings per share	<u>\$ 0.57</u>

#### 4. Business Segment Information:

The Company's Chief Executive Officer and its management regularly review the available financial information for the Company's discrete business units. Based on similarities in economic characteristics, nature of products and services, production processes, type or class of customer served, method of distribution, and regulatory environments, the operating units have been aggregated for financial statement purposes into two reportable segments called Test (formerly "MT&S") and Industrial (formerly "Factory Automation"). The Test segment provides testing equipment, integrated software, and consulting services to the ground vehicles, aerospace, and infrastructure markets. The Industrial segment provides component solutions, such as position sensors, that automate machines and machine tools.

In evaluating each segment's performance, management focuses on income from operations. This measurement excludes interest income and expense, income taxes, and other non-operating items. Corporate expenses, including costs associated with various support functions such as human resources, information technology, finance and accounting, and general and administrative costs, are allocated to the reportable segments primarily on the basis of revenue.

Financial information by reportable segment is as follows:

	2003	2002	2001
	(expressed in thousands)		
<b>Revenue by Segment</b>			
Test	\$ 292,037	\$ 286,979	\$ 316,110
Industrial	48,050	40,206	39,749
<b>Total Revenue</b>	<u>\$ 340,087</u>	<u>\$ 327,185</u>	<u>\$ 355,859</u>
<b>Income from Operations by Segment</b>			
Test	\$ 29,079	\$ 29,041	\$ 23,787
Industrial	4,037	2,247	2,623
<b>Total Income from Operations</b>	<u>\$ 33,116</u>	<u>\$ 31,288</u>	<u>\$ 26,410</u>
<b>Identifiable Assets by Segment</b>			
Test	\$ 274,218	\$ 256,486	238,543
Industrial	56,160	53,774	54,921
Discontinued Operations	-	15,311	38,479
<b>Total Assets</b>	<u>\$ 330,378</u>	<u>\$ 325,571</u>	<u>\$ 331,943</u>
<b>Other Segment Data</b>			
Test:			
Capital expenditures	\$ 4,635	\$ 3,279	\$ 3,951
Depreciation and amortization	8,257	8,664	10,685

Industrial:

Capital expenditures	\$	1,938	\$	1,869	\$	4,104
Depreciation and amortization		1,515		1,307		1,495

Geographic segment information is as follows:

	2003	2002	2001
	(expressed in thousands)		
<b>Revenue</b>			
United States	\$ 146,607	\$ 145,982	\$ 147,965
Europe	119,382	92,269	95,167
Asia	60,506	76,584	90,852
Other	13,592	12,350	21,875
<b>Total Revenue</b>	<b>\$ 340,087</b>	<b>\$ 327,185</b>	<b>\$ 355,859</b>
<b>Property and Equipment, Net</b>			
United States	\$ 44,121	\$ 46,209	\$ 51,496
Europe	11,469	10,110	10,012
Asia	614	565	288
Other	-	-	38
<b>Total Property and Equipment, Net</b>	<b>\$ 56,204</b>	<b>\$ 56,884</b>	<b>\$ 61,834</b>

Revenue by geographic area is presented based on the customer's location. No country other than the United States has revenue in excess of 15% of the Company's total revenue. No single customer accounted for 10% or more of consolidated revenue during any of the periods presented.

## 5. Financing:

Long-term debt at September 27, 2003 and September 28, 2002 is as follows:

	2003	2002
	(expressed in thousands)	
6.6% Notes, unsecured, due in annual installments of \$4,375 beginning in July 2001	\$ 21,875	\$ 26,250
7.5% Note, unsecured, due in semi-annual installments of \$1,153 beginning in July 2003	13,846	15,000
Variable Rate Note, paid in full in fiscal 2003, collateralized by building	-	2,575
5.4% Mortgage, paid in full in fiscal 2003, collateralized by building	-	4,948
6.0% Puttable Note, unsecured, due in 2008	1,250	1,500
Other	355	1,121
<b>Total Long-Term Indebtedness</b>	<b>\$ 37,326</b>	<b>\$ 51,394</b>
<b>Less Current Maturities of Long-Term Debt</b>	<b>(6,839)</b>	<b>(8,605)</b>
<b>Total Long-Term Debt</b>	<b>\$ 30,487</b>	<b>\$ 42,789</b>

Aggregate annual maturities of long-term debt for the next five fiscal years and thereafter are as follows:

Year	Maturity
	(expressed in thousands)
2004	\$ 6,839
2005	6,855
2006	6,708
2007	6,683
2008	7,933
Thereafter	2,308
	<b>\$ 37,326</b>

The holder of the 6.0% Puttable Note has the option to put all or a portion of that note for payment to the Company at any time upon specified one-year notice. The 6.6% and 7.5% Notes have pre-payment penalties that make early pay-off disadvantageous for the Company based on current market interest rates. The Company estimates that the fair market value of its long-term debt portfolio exceeds carrying value by \$2.0 million at September 27, 2003, due to lower market interest rates relative to interest rates at the time of issuance.

The Company is subject to financial covenants, among other restrictions, under the 6.6% and 7.5% Notes. At September 27, 2003, the Company was in compliance with these financial covenants. Under these covenants the Company is required, among other matters, to maintain certain financial ratios and to meet certain indebtedness and restricted payment tests.

Information on short-term borrowings for the years ended September 27, 2003, September 28, 2002 and September 30, 2001 is as follows:

	2003	2002
	(expressed in thousands)	
Balance outstanding at year-end	\$ 383	\$ 598
Interest rate at year-end	2.0%	3.4%
Weighted-average interest rate during the year	1.5%	1.6%

The Company had no amounts outstanding on its primary \$25 million revolving bank credit facility during fiscal 2003. On December 16, 2002, the Company amended its \$50 million revolving bank credit agreement, reducing the facility to \$25 million and extending its maturity to January 2005. The Company is required, among other restrictions, to maintain certain financial covenants under the \$25 million revolving bank facility. At September 27, 2003 the Company was in compliance with these financial covenants.

At September 27, 2003, the Company had letters of credit outstanding totaling \$48.1 million.

## 6. Income Taxes:

The components of income before income taxes for the fiscal years ended September 27, 2003, September 28, 2002 and September 30, 2001 are as follows:

	2003	2002	2001
	(expressed in thousands)		
Income before income taxes, discontinued operations and cumulative effect of accounting changes:			
Domestic	\$ 16,243	\$ 26,048	\$ 13,625
Foreign	16,273	6,835	10,219
<b>Total</b>	<b>\$ 32,516</b>	<b>\$ 32,883</b>	<b>\$ 23,844</b>

The provision for income taxes from continuing operations before cumulative effect of accounting changes for the fiscal years ended September 27, 2003, September 28, 2002 and September 30, 2001 is as follows:

	2003	2002	2001
	(expressed in thousands)		
Current provision (benefit):			
Federal	\$ 6,054	\$ 6,921	\$ 5,583
State	794	630	700
Foreign	2,850	3,542	4,212
Deferred	1,527	(480)	(2,207)
<b>Total provision</b>	<b>\$ 11,225</b>	<b>\$ 10,613</b>	<b>\$ 8,288</b>

A reconciliation from the federal statutory income tax rate to the Company's effective rate for continuing operations before cumulative effect of accounting changes for the fiscal years ended September 27, 2003, September 28, 2002 and September 30, 2001, is as follows:

	2003	2002	2001
Statutory income tax rate	35%	35%	35%
Tax benefit of export sales	(4)	(6)	(5)
Foreign provision in excess of U.S. tax rate	4	4	4
State income taxes, net of federal benefit	2	2	1
Research and development tax credits	(3)	(4)	(4)
Meals and entertainment and other permanent items	1	1	1
Goodwill amortization	-	-	1
Other, net	-	-	2
<b>Effective income tax rate</b>	<b>35%</b>	<b>32%</b>	<b>35%</b>

A summary of the deferred tax assets and liabilities for the fiscal years ended September 27, 2003, September 28, 2002 and September 30, 2001, is as follows:

	2003	2002	2001
	(expressed in thousands)		
<b>Deferred Tax Asset:</b>			
Accrued compensation and benefits	\$ 3,345	\$ 3,621	\$ 2,918
Inventory reserves	3,650	5,305	6,048
Intangibles	2,718	3,292	-
Allowance for doubtful accounts	367	371	347
Other assets	274	(87)	897
Net operating loss carryovers	1,343	-	-
Capital loss carryovers	608	-	-
Research and foreign tax credits	6,008	4,671	3,303
Less valuation allowance	(723)	-	-
<b>Total Deferred Tax Asset</b>	<b>\$ 17,590</b>	<b>\$ 17,173</b>	<b>\$ 13,513</b>
<b>Deferred Tax Liability:</b>			
Property and equipment	\$ 6,949	\$ 8,360	\$ 8,171
Foreign deferred revenue and other	4,708	-	-
<b>Total Deferred Tax Liability</b>	<b>\$ 11,657</b>	<b>\$ 8,360</b>	<b>\$ 8,171</b>
<b>Net Deferred Tax Asset</b>	<b>\$ 5,933</b>	<b>\$ 8,813</b>	<b>\$ 5,342</b>

At September 27, 2003, the Company had research credit carryovers for federal and state purposes of approximately \$4.8 million that will expire between the years 2014 and 2018 if not utilized. The Company also has foreign tax credit carryovers of approximately \$1.2 million, which, if not utilized, will expire between the years 2005 and 2007. The Company's French subsidiary has a \$3.5 million net operating loss carryover that will not expire under French law.

At September 28, 2002 and September 30, 2001, the amount of the research credit carryover for federal and state purposes was \$4.0 million and \$2.8 million, respectively. The amount of the foreign tax credit carryover was \$0.6 million and \$0.1 million, respectively. Additionally, a \$1.1 million net operating loss carryover subject to an annual Internal Revenue Code Section 382 limitation, attributable to an acquired subsidiary, was fully utilized during the fiscal year ended September 28, 2002.

The Company has assessed its taxable earnings history and prospective future taxable income. Based on this assessment, the Company has determined that it is more likely than not that its net deferred tax assets will be realized in future periods. The Company has also determined that it is not more likely than not that the Company will be able to utilize its net operating loss carryover in Italy of \$0.3 million and its \$1.6 million U.S. capital loss carryover. Accordingly, the Company has determined that a valuation allowance is appropriate for the full amount of the Italian net operating loss and the U.S. capital loss carryover. The Italian net operating loss carryover expires in 2007, and the U.S. capital loss carryover expires in 2008.

According to APB 23, "Accounting for Income Taxes – Special Areas," U.S. income taxes are not provided on undistributed earnings of international subsidiaries, which are permanently reinvested. At September 27, 2003, undistributed earnings permanently reinvested in international subsidiaries were approximately \$46 million. The Company has not provided U.S. income taxes on these earnings. If these earnings were repatriated, the U.S. income taxes would be substantially offset by foreign tax credits.

In fiscal 2003, 2002, and 2001, the Company recognized tax benefits of \$1.1 million, \$0.2 million, and \$0.4 million, respectively, relating to the Company's stock option plan. These benefits were directly allocated to shareholders' investment.

## 7. Stock Plans:

The Company compensates officers, non-employee directors, and key employees with stock-based compensation under two stock plans approved by the Company's shareholders and under supervision of the Board of Directors. During the year ended September 27, 2003, the Company awarded incentive stock options, non-qualified stock options, and restricted stock grants under these plans. Stock option awards are granted at exercise prices equal to market value on the date of grant. Generally, options vest proportionally over three years, beginning one year after grant date, and expire five years from the grant date. A status of the Company's stock option plans is summarized below (in thousands, except per share amounts):

	2003		2002		2001	
	Shares	WAEP*	Shares	WAEP*	Shares	WAEP*
Options outstanding at beginning of year	3,022	\$ 11.27	3,081	\$ 11.12	3,626	\$ 9.98
Granted	699	\$ 14.29	728	\$ 10.50	728	\$ 12.30
Exercised	(681)	\$ 9.44	(214)	\$ 6.57	(410)	\$ 8.00
Forfeited or expired	(555)	\$ 14.75	(573)	\$ 11.26	(863)	\$ 8.81
Options outstanding at year-end	2,485	\$ 11.84	3,022	\$ 11.27	3,081	\$ 11.12
Options subject to exercise at year-end	1,043	\$ 10.38	1,684	\$ 11.90	1,418	\$ 11.58

\*Weighted-Average Exercise Price

The following summarizes information concerning stock options outstanding at September 27, 2003 (in thousands, except per share amounts):

Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Subject to Exercise
\$6.375-\$10.30	456	1.91	\$ 7.57	414
\$10.51	501	3.72	\$ 10.51	146
\$10.53-\$12.93	543	2.96	\$ 12.56	321
\$13.00-\$14.55	435	1.97	\$ 13.20	160
\$14.81	550	4.68	\$ 14.81	2
Total	2,485	3.13	\$ 11.84	1,043

The Company awarded two officers with restricted stock grants totaling 12,000 shares with an aggregate grant date fair value of \$0.1 million in fiscal 2003. The grants vest over three years.

At September 27, 2003, a total of 1,636,433 shares were available for future grant under the two stock plans.

According to the Black-Scholes multiple option model, the estimated fair value of employee stock options granted at market price during fiscal 2003, 2002, and 2001 averaged \$5.61, \$3.69, and \$4.20, respectively. The fair value of options granted under stock-based compensation has been estimated at the date of each grant using a Black-Scholes multiple option valuation model. The multiple option form of the model separately values each vesting increment of the stock grant. This form yields a lower valuation than other forms of the model, but allocates proportionately more of the resulting cost to early vesting periods. In general, the fair value of a grant will increase or decrease based on certain assumptions used for the stock grants summarized as follows:

	2003	2002	2001
Expected life (in years)	2.7	2.4	3.5
Risk-free interest rate	1.6%	2.9%	2.9%
Expected volatility	0.65	0.65	0.54
Dividend yield	1.7%	2.3%	2.1%

In fiscal 2002, the Company's shareholders authorized a new Employee Stock Purchase Plan, whereby 750,000 shares of the Company's common stock were reserved for purchase by employees. At September 27, 2003, 652,798 shares remain reserved for issuance. Purchases are funded by payroll deduction over six-month periods. The final purchase price is 85% of the lower of the market price at either the beginning or end of the period. The shares must be held by the employee for at least one year subsequent to the purchase. Two purchase periods closed in fiscal 2003 with the purchase of 97,000 shares for an average price of \$8.51. Approximately 96,000 shares and 150,000 shares were issued in 2002 and 2001, respectively, under an employee stock purchase plan that terminated in fiscal 2002.

See Note 1 to the Consolidated Financial Statements for the pro forma impact of stock-based compensation on net income.

## 8. Employee Benefit Plans:

The Company offers a retirement plan that has two components -- a 401(k) component with a Company match and a fiscal year Company contribution.

The 401(k) plan allows eligible U.S. employees to contribute a portion of their pre-tax income each pay period. The Company matches 50% of employees' pre-tax contributions up to 6% of compensation, subject to limitations imposed by federal law. In fiscal 2002 and 2001, the Company match was limited to \$500 per employee. Employees are fully vested in their voluntary contributions and Company match. The Company's matching contribution was \$1.8 million in fiscal 2003, \$0.6 million in fiscal 2002, and \$0.6 million in fiscal 2001. Employees may also contribute a percentage of their salary on an after-tax basis.

The Company also provides an annual fiscal year contribution to the retirement plan for eligible U.S. and certain international employees. Employees who have been paid for 1,000 hours or more of service during a plan year are eligible for a fiscal year contribution. After three years as a participant, employees have a vested interest equal to one-third of the total Company contributions. The vested interest increases each additional year by one-third of the total balance, until total vesting is reached after five years of participation.

The Company contribution plan provides for a minimum fiscal year contribution of 3% of participant compensation below the Social Security taxable wage base and 6% of participant compensation in excess of the Social Security taxable wage base, up to the maximum contribution allowed by federal law. In fiscal 2002 and 2001, the fiscal year contributions were 4% of participant compensation below the Social Security taxable wage base and 8% of participant compensation in excess of the Social Security taxable wage base. The Company's Board of Directors approves any changes to the contribution levels

under the plan. The Company's contributions under the Company contribution plan totaled \$2.7 million in fiscal 2003 and \$4.2 million in both fiscal 2002 and fiscal 2001.

One of the Company's international subsidiaries has a non-contributory, unfunded defined benefit retirement plan for eligible employees. This plan provides benefits based on the employee's years of service and compensation during the years immediately preceding retirement, early retirement, termination, disability, or death, as defined in the plan.

The cost for the plan includes the following components:

	2003	2002	2001
	(expressed in thousands)		
Service cost-benefit earned during the period	\$ 237	\$ 183	\$ 195
Interest cost on projected benefit obligation	361	278	243
Net amortization and deferral	17	15	15
<b>Net Periodic Retirement Cost</b>	<b>\$ 615</b>	<b>\$ 476</b>	<b>\$ 453</b>

The following summarizes the change in benefit obligation and the change in plan assets:

	2003	2002
	(expressed in thousands)	
Change in benefit obligation:		
Projected benefit obligation, beginning of year	\$ 5,482	\$ 4,774
Service cost	237	183
Interest cost	361	278
Translation change	1,016	44
Actuarial loss	393	257
Benefits paid	(76)	(54)
<b>Projected benefit obligation, end of year</b>	<b>\$ 7,413</b>	<b>\$ 5,482</b>
Change in plan assets:		
Fair value of plan assets, beginning of year	\$ -	\$ -
Actual return on plan assets	-	-
Employer contributions	76	54
Benefits paid	(76)	(54)
<b>Fair value of plan assets, end of year</b>	<b>\$ -</b>	<b>\$ -</b>

The funded status of the Company's pension retirement plan at September 27, 2003, and September 28, 2002, respectively, is as follows:

	2003	2002
	(expressed in thousands)	
Funded status	\$ (7,413)	\$ (5,482)
Unrecognized net gain	736	271
Unrecognized net liability being amortized	73	72
Required adjustment to recognize minimum liability	6	11
<b>Accrued Pension Liability</b>	<b>\$ (6,598)</b>	<b>\$ (5,128)</b>
Major assumptions used in the above calculation include:		
Discount rate	5.5%	6.0%
Expected rate of increase in future compensation levels	3.1%	3.1%

## 9. Restructuring and Other Charges:

During fiscal 2003, the Company had no significant restructuring activities related to business consolidation other than the discontinuation of its Automation division operations (See note 2 to the Consolidated Financial Statements).

During fiscal 2002, the Company consolidated its Electromechanical Testing Division into Eden Prairie, Minnesota from Raleigh, North Carolina. The physical move of the business and the facility closure were completed during fiscal 2002. As a result of the consolidation, the Company recorded a \$0.4 million charge for severance-related costs and a \$0.6 million charge to write down inventory. Substantially all of the severance costs were paid during fiscal 2002.

During fiscal 2001, the Company recorded a restructuring charge of \$2.3 million as a result of the closure of its manufacturing operations in France and the transfer of this product line to its electromechanical division in North Carolina. Substantially all the necessary cash outlays were completed during fiscal 2001. These costs were financed primarily with funds from continuing operations and borrowings under the Company's bank line of credit. In addition, during fiscal 2001 the Company recorded a restructuring charge of \$1.9 million related to the discontinuation of a line of data acquisition products acquired as part of its 1999 acquisition of DSP Technology, Inc. ("DSP") in 1999. This included a provision for severance costs of \$0.8 million, the write-off of leasehold improvements and production and other equipment of \$0.3 million, and other costs of \$0.8 million associated with closure of the facility, the wind-down of the related product line, excess and obsolete inventory, uncollectible receivables and the write-off of fixed assets. Of the total \$1.9 million, \$1.3 million was charged to Cost of Sales and \$0.6 million was charged to General and Administrative Expense. The activity related to the provision was materially complete at September 30, 2001, and no additional charges were incurred during fiscal 2002.

For the three years ended September 27, 2003, September 28, 2002, and September 30, 2001, the reserve for restructuring is as follows:

Year	Beginning Balance	Provision	Write-off	Ending Balance
	(expressed in thousands)			
2001	\$ -	\$ 4,193	\$ (3,972)	\$ 221
2002	221	1,019	(1,219)	21
2003	21	-	(21)	-

#### **10. Commitments and Contingencies:**

**Litigation:** The Company is a party to various claims, legal actions, and complaints arising in the ordinary course of business. In the opinion of management, final resolution of these matters will not have a material adverse effect on the consolidated financial position or results of operations of the Company.

**Leases:** Total lease expense associated with continuing operations was \$5.1 million in fiscal 2003, \$5.2 million in fiscal 2002, and \$4.8 million in fiscal 2001. The Company has non-cancelable operating lease commitments for equipment and facilities that expire on various dates through 2011. Minimum annual rental commitments for the next five fiscal years and thereafter are as follows:

Year	Amount
	(expressed in thousands)
2004	\$ 3,937
2005	3,882
2006	2,521
2007	1,450
2008	1,149
Thereafter	3,079
	\$ 16,018

MTS SYSTEMS CORPORATION AND SUBSIDIARIES  
SCHEDULE II - SUMMARY OF CONSOLIDATED ALLOWANCES  
FOR DOUBTFUL ACCOUNTS AND RESTRUCTURING RESERVES  
FOR THE YEARS ENDED SEPTEMBER 27, 2003, SEPTEMBER 28, 2002  
AND SEPTEMBER 30, 2001

(In Thousands)

	<u>Balance Beginning of Year</u>	<u>Provisions</u>	<u>Amounts Written-Off/ Payments</u>	<u>Balance End of Year</u>
<u>Allowance for Doubtful Accounts:</u>				
2003	\$2,432	\$ 184	(\$833)	\$1,783
2002	2,525	712	(805)	2,432
2001	1,919	673	(67)	2,525
 <u>Restructuring Reserves:</u>				
2003	\$ 21	\$ -	(\$21)	\$ -
2002	221	1,019	(1,219)	21
2001	-	4,193	(3,972)	221

# Corporate Information

## Board of Directors

Sidney W. Emery, Jr.  
Chairman and  
Chief Executive Officer  
MTS Systems Corporation

Dugald K. Campbell  
former President and CEO,  
Tower Automotive, Inc.

Jean-Lou Chameau  
Provost, Vice President  
Georgia Institute of Technology

Merlin E. Dewing  
Chairman and Founder  
Dewing Financial Services, Inc.

Brendan C. Hegarty  
Former Chief Executive Officer  
NanoMagnetics

Barbara J. Samardzich  
Executive Director - Lifestyles/Youth  
Small FWD and RWD Vehicles  
Ford Motor Company

Linda Hall Whitman  
Chief Executive Officer  
MinuteClinic, Inc.

## Notice of Annual Meeting

The annual meeting of shareholders will be held at 5:00 p.m. (Central Standard Time) on Tuesday, January 27, 2004 at the Company's Headquarters in Eden Prairie, Minnesota. Shareholders who cannot attend the meeting are urged to exercise their right to vote by proxy.

## Common Stock

MTS Systems Corporation's common stock publicly trades on The Nasdaq Stock Market's National Market under the symbol "MTSC."

## Executive Management

Sidney W. Emery, Jr.  
Chairman and  
Chief Executive Officer

Laura B. Hamilton  
Senior Vice President  
Test

Joachim Hellwig  
Vice President  
Sensors

Susan E. Knight  
Vice President  
Chief Financial Officer

Douglas E. Marinaro  
Vice President  
Software and Consulting Services

Kathleen M. Staby  
Vice President  
Human Resources

## Corporate Officers

John R. Houston  
Corporate Secretary  
Partner, Robins, Kaplan, Miller & Ciresi LLP

Paul T. Runice  
Treasurer

Barbara J. Carpenter  
Assistant Corporate Secretary

## Investor Relations

Paul T. Runice  
Treasurer  
MTS Systems Corporation  
14000 Technology Drive  
Eden Prairie, Minnesota  
55344-2290  
Telephone: 952-937-4003  
Email: paul.runice@mts.com

## Dividend Reinvestment Plan

Shareholders can invest MTS Systems dividends in additional shares of MTS stock and make periodic voluntary cash investments toward the purchase of MTS stock. Shareholders may obtain a brochure giving further details by calling Wells Fargo Shareholder Services at 800-468-9716.

## Trademarks

MTS, Nano Indenter and Temposonics are registered trademarks, Safedesign, Aero Pro, and Aero ST are trademarks, and AeroMet is a servicemark of MTS Systems Corporation.

## Corporate Headquarters

MTS Systems Corporation  
14000 Technology Drive  
Eden Prairie, Minnesota  
55344-2290  
Telephone: 952-937-4000  
info@mts.com  
www.mts.com

## North American Subsidiaries

AeroMet Corporation  
MTS Testing Systems (Canada) Ltd.

## European Subsidiaries

MTS Automotive Sensors GmbH  
MTS Holdings France, SARL  
MTS International Ltd.  
MTS Powertrain Technology Ltd.  
MTS Sensor Technologie und  
Verwaltungs-GmbH  
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