



Teledyne Technologies Incorporated

**20
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A N N U A L R E P O R T

2002 Earnings per Share

(Continuing operations data)



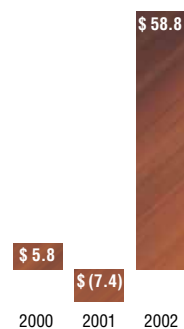
Cash from Operations

(In millions; continuing operations data)



Free Cash Flow⁽¹⁾

(In millions; continuing operations data)



⁽¹⁾ Free Cash Flow represents Cash from Operating Activities less purchases of property, plant and equipment.

2002 HIGHLIGHTS

Selected Consolidated Financial Data

(In millions, except per-share data)

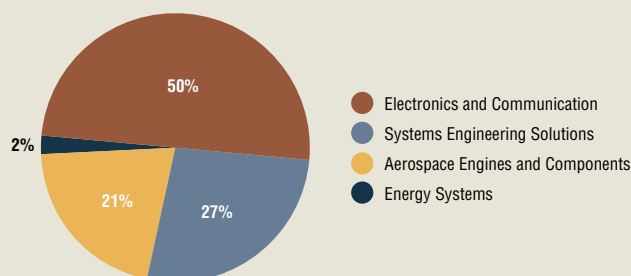
Summary Financial Information

	2002	2001	2000
Sales	\$ 772.7	\$ 744.3	\$ 795.1
Net income from continuing operations	\$ 25.4	\$ 6.8	\$ 31.9
Diluted earnings per-share from continuing operations	\$ 0.77	\$ 0.21	\$ 1.08
Weighted average diluted common shares outstanding	32.9	32.4	29.5

Summary Balance Sheet Data

	2002	2001	2000
Working capital	\$ 102.6	\$ 115.3	\$ 107.6
Total assets	391.1	349.3	350.9
Long-term debt	—	30.0	—
Stockholders' equity	\$ 176.8	\$ 173.0	\$ 163.1

2002 Sales by Segment



See "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the "Notes to Consolidated Financial Statements" in this 2002 Annual Report on Form 10-K for additional information regarding Teledyne Technologies Incorporated financial data.



Robert Mehrabian
Chairman, President
and Chief Executive
Officer



Robert J. Naglieri
Senior Vice President
and Chief Financial
Officer



John T. Kuelbs
Senior Vice President,
General Counsel and
Secretary

TO OUR STOCKHOLDERS

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eledyne had a good year in 2002, both financially and strategically. The company's strong financial performance, despite weak demand for a number of our commercial products, reflects an agile enterprise with a flat management structure focused on operational excellence and cost reduction. Strategically, we made another synergistic acquisition in the instrumentation area, and continued to focus our investments to grow the company's electronics, instruments and systems engineering businesses.

Sales in each of the company's reporting segments were greater in 2002 than 2001. Earnings and cash flow increased substantially, and we ended 2002 with a healthy balance sheet with no debt and \$19 million of cash on hand. Earnings per share of \$0.77 in 2002 increased from earnings per share from continuing operations of \$0.21 in 2001. Earnings per share from continuing operations in 2001 were impacted by asset impairment, restructuring and other charges totaling \$0.48 per share, while non-cash pension income contributed \$0.04 and \$0.18 to earnings per share in 2002 and 2001, respectively. Cash from operating activities from continuing operations in 2002 was greater than in 2000 and 2001 combined, and free cash flow⁽¹⁾ in 2002 was a positive \$59 million.

Since our November 1999 spin-off, we have undertaken a number of strategic steps to transform the company into an enterprise focused on electronics, instruments and systems engineering. In 2000, we sold the aerospace castings business. In 2001, we restructured the company by taking major headcount reductions and creating a flatter management structure. In addition, we sold or closed seven underperforming product lines. In 2001, all electronic instrumentation businesses were consolidated under common management, and our energy technologies business was separated from the Systems Engineering Solutions segment. In 2001, we acquired our first electronic instrumentation company, Advanced Pollution Instrumentation (API), and in 2002 we acquired Monitor Labs, which, like API, is focused on the environmental instrumentation market.

These actions resulted in improved financial performance of our Electronics and Communications and Systems Engineering Solutions segments in 2002. Despite the weakness in the commercial aviation, semiconductor and

⁽¹⁾ Free cash flow represents cash from operating activities from continuing operations less purchases of property, plant and equipment.

telecommunications markets, our Electronics and Communications sales grew, and operating profit increased significantly. Operating margin in the Systems Engineering Solutions segment, driven by large award fees in some of our key government programs, was at the highest level since our spin-off.

Growth in Defense Electronics and Commercial Instruments

In 2002, we continued to grow our defense electronics businesses. Orders increased for microelectronic modules used in military aviation and secure communication applications. In addition to increased sales of microelectronic modules for the F-22 and Comanche programs, we received orders for the development of similar modules for the Joint Strike Fighter. We have outgrown capacity at our current military traveling wave tube facility in Rancho Cordova, California, due to increased volume, and plan to spend approximately \$6 million in 2003 to expand that company-owned facility. This will upgrade our manufacturing capacity with the latest test equipment and eliminate leased space. Occasionally, we are able to expand into defense markets by leveraging technology from our commercial electronics products. In 2002, we expanded our Geophysical Instruments product line, originally developed for offshore oil and gas exploration, for new military applications such as antisubmarine monitoring.

The acquisitions of Advanced Pollution Instrumentation and Monitor Labs nearly doubled the size of our total instrumentation businesses and expanded our access to the environmental monitoring and pollution control market. Growth in our industrial instrumentation businesses, both organically and through acquisition, continues to be a key strategic focus in 2003. Sales to medical customers increased substantially in 2002, driven by significantly higher sales of medical electronics manufacturing services. Given the long-term growth prospects for medical instrumentation, we continue to look for ways to expand our presence in these markets.

Consistent Strength in Systems Engineering

Following restructuring in 2001, our Systems Engineering Solutions segment entered 2002 as a more focused government services business, better able to leverage its core competencies in systems engineering and software development. During 2002 we enhanced our position in a number of our long-term government relationships, while also expanding into new markets.

With receipt of a contract award in early 2002, Teledyne entered its 41st year of uninterrupted service to the nation's space and missile defense programs, providing a broad array of technical assistance including expertise related to missiles, optical and radar sensors, targets, command communications, and systems integration.

In the missile defense market, we also participate as a subcontractor to The Boeing Company in the Ground-based Midcourse Defense (GMD) missile defense program. In 2002, Teledyne personnel served as the Flight Test

Manager of two of three Integrated Flight Tests in the company's continuing support of the GMD Program. We were also selected as a strategic subcontractor to Orbital Sciences Corporation to perform work on alternate ground-based boost vehicles for the GMD program. While funding for the overall GMD program will be lower in 2003 than 2002, given current national priorities and the intent to begin deployment of a national missile defense network, we are excited about the long-term possibilities for our core capabilities in missile defense systems engineering and test services.

For nearly 50 years, Teledyne has supported almost every major NASA aerospace initiative, from the Apollo moon exploration, through Space Shuttle scientific payloads, to the International Space Station. In June of 2002, NASA selected Teledyne as the single prime contractor for the design, development, operation, and support of NASA's Marshall Space Flight Centers' future Microgravity Science payloads for the International Space Station. The maximum contract value for this program could approach one-half billion dollars over a ten-year period.

The Systems Engineering Solutions segment diversified its customer base in 2002 with new contract awards from the U.S. Air Force, the Federal Aviation Administration and the U.S. Coast Guard.

Our Response to Weakness in Commercial Aviation

The market for commercial avionics in 2002 was difficult. Sales of new and replacement products were impacted by the weak performance of domestic airlines, as well as reduced deliveries of new air transport and business aircraft. Although our sales of commercial avionics products decreased approximately 20%, Teledyne succeeded in gaining market share in existing commercial product lines, while expanding into new defense markets.

Teledyne's market share of data acquisition systems on new Airbus A320 and A330/340 aircraft is currently expected to continue to increase from under 10% in the year 2000, to 30% in 2003, and up to 50% in 2005. In addition, we recently formed a strategic alliance with Airbus to jointly develop and market the next generation flight data analysis software to be sold under the brand name AirFASE.

Ryan Air, the fastest growing airline in Europe, has designated Teledyne as its sole source data acquisition system supplier, and is currently working with us to add our latest Wireless GroundLink™ products and Ground Data Analysis software to its aircraft. As a result, Teledyne will be providing an end-to-end Flight Data Services capability.

Teledyne's historically commercial-only avionics business has expanded into new military markets. The company was recently awarded a contract for its Communications Management Unit software for use on the U.S. Air Force's C-130 Avionics Modernization Program, as well as for potential new Boeing 767 Tanker Transport aircraft. Over the last 18 months, we have been selected

to supply products for use on four separate military aircraft platforms: the C-17, the P-3, the C-130 and the new B-767 Tanker Transport.

By introducing the latest technological developments, such as digital electronic engine controls, and maintaining its relationships with key customers, Teledyne was also able to increase market share in the general aviation marketplace. Although a weak economy and rising pilot insurance costs resulted in a 13% decline in the delivery of new piston-powered general aviation aircraft in 2002, sales of Teledyne Continental Motors' engines for OEM aircraft increased over 20% during the same period. By focusing on customers such as Cirrus Design, whose aircraft are powered exclusively by Teledyne engines, sales of Continental Motors engines for new OEM piston engine aircraft increased for the sixth consecutive year.

Our Board of Directors

All members of your Board of Directors, excluding me, are independent directors. Each of your directors, including me, is committed to the highest standards of corporate and financial integrity. In 2002, we were pleased that Charles H. Noski, former vice chairman of AT&T, joined the Board of Directors. Chuck is widely respected and recognized as one of America's finest executives with an excellent reputation in the investment and business communities. We are also pleased that Charles J. Queenan, Jr. has agreed to serve another year to provide guidance and assistance to support compliance with the Sarbanes-Oxley Act of 2002.

Looking Ahead

It is likely that the economic challenges we faced in 2002 will continue in 2003. However, our balanced mix of commercial and government businesses and our focus on operational excellence should provide opportunities for continued improvement and organic growth this year. Furthermore, our strong balance sheet gives us flexibility to pursue further synergistic acquisitions in our strategic businesses.

Finally, I want to recognize all of Teledyne's employees for their outstanding efforts to improve the performance of our businesses over the past year. Moreover, our management team is committed to excellence in all that it does for our company's stockholders, including adhering to the highest standards of ethics and accurate financial reporting.



Robert Mehrabian
Chairman, President and Chief Executive Officer
February 25, 2003

REVIEW 2002

ELECTRONICS AND
COMMUNICATIONS SEGMENT

Ejection seat sequencers protect pilots' lives on U.S. Navy, Marine and Air Force aircraft.

Sales in the Electronics and Communications segment increased 4.9 percent in 2002 compared to 2001, as gains in instruments, military and medical product sales were partially offset by continued weakness in the semiconductor, telecommunications and commercial aerospace areas. Operating profit increased as a result of the company's continued focus on cost management and operational excellence.

Cost Reduction and Operational Excellence

Business units within the Electronics and Communications segment have been developing an Operational Excellence initiative that is focused on reducing manufacturing cycle times and eliminating scrap and rework costs. Several of these units have adopted lean manufacturing techniques and have revised factory layouts to provide more efficient work cells and work flow. The increase in operating earnings for this segment is testimony to the effectiveness of this initiative.

Defense Electronics

The defense and military fields have remained among the most important markets for Teledyne microelectronic components and systems. Demand for various microelectronic components on the U.S. Air Force F-22 Raptor aircraft have remained strong, especially for the fiber optic transmitter/receiver modules used in the aircraft's communications and control systems, as well as for solid-state relays and power controllers. Teledyne was also selected to provide fiber optic and other microelectronic modules for the new Joint Strike Fighter aircraft now being developed. Production of secure communications modules and printed circuit card assemblies for the Enhanced Position Location Reporting System, a modern U.S. Army battlefield communication system, also increased during the year.

Orders for military traveling wave tube (TWT) spares and repairs remained steady throughout the year. In addition, Teledyne delivered its first products for several significant radar and electronic countermeasure upgrade programs. Teledyne TWTs have enabled the U.S. Army to modularize the transmitters used in the Firefinder and Sentinel battlefield radars to improve performance and reliability. Having completed production of TWTs for the first major upgrade in 20

years of the U.S. Navy AN/ALQ-99 standoff jammer, Teledyne qualified and began production during 2002 of TWTs for a second major upgrade of this system.

After a slow start in the first quarter, defense orders for rigid-flex printed circuit boards increased ahead of 2001, primarily for radar and missile applications. The company's new VME-Flex™ products have been designed into two major defense programs, and production on one of these will begin in 2003.

Teledyne's new fourth generation aircraft ejection seat sequencer is now operationally deployed in the F/A-18 E-F aircraft, and an even newer generation sequencer for the Joint Strike Fighter aircraft is under development. The majority of the orders in a new buy of ACES II sequencers for the U.S. Air Force were also won by Teledyne. During the last 16 years, Teledyne has delivered nearly 7000 ACES units.

In some cases, technology originally developed for commercial markets is being adapted for defense applications. For example, Teledyne's hydrophone sensors and streamer cables developed for seismic exploration for offshore oil deposits (see Instrument's feature article) are now finding application in military markets, where they are used for the detection of submarines and torpedoes.

Other examples of the use of commercial technology for defense applications include two programs that have been won by Teledyne Controls. As previously reported, the company's Optical Quick Access Recorder, originally developed for aircraft condition monitoring systems on commercial airliners, has been chosen for use on the C-17 Globemaster III, the most modern and sophisticated military transport aircraft in the world. The company was also awarded a subcontract under a U.S. Air Force program to embed its Communication Management Unit software into aircraft Flight Management

Systems for the C-130 Transport and B-767 Tanker aircraft. These systems are expected to be deployed in over 550 C-130 Transport and 100 B-767 Tanker aircraft over the next several years.

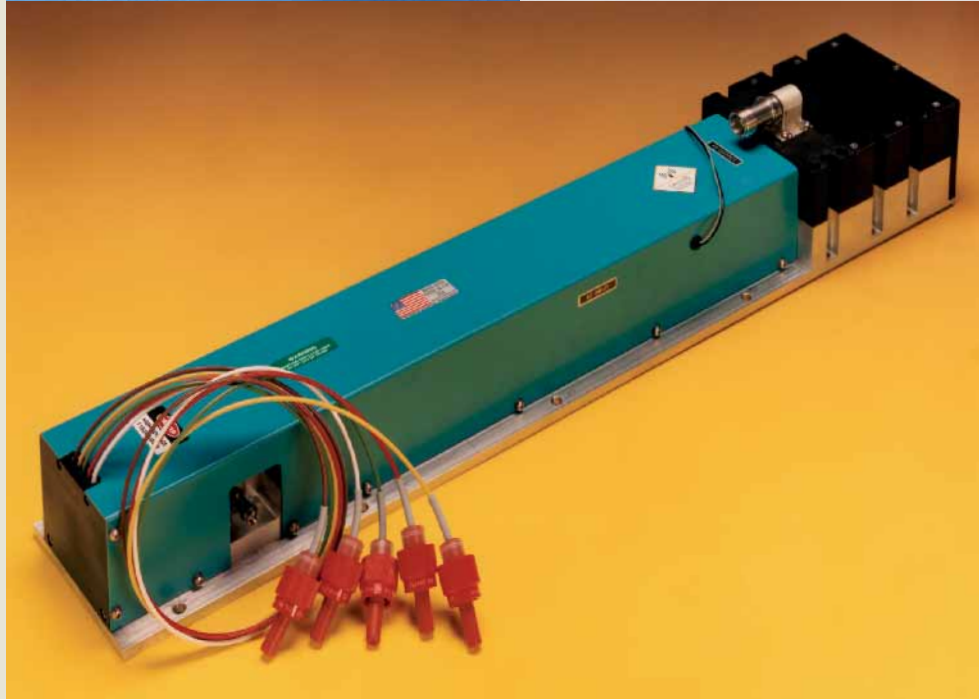
Commercial Aerospace

The commercial air transport market remained weak throughout 2002, as airline companies experienced significant losses, and Boeing, Airbus and manufacturers of business aircraft reduced production. While these market conditions have had a negative impact on the company's avionic products, with sales down approximately 20 percent compared to 2001, Teledyne has continued to gain market share and introduce new products that offer competitive advantages.

The company's data management systems have been certified across both the Airbus Single Aisle and Long Range (A340-500/600) and the basic A330/340 aircraft families. Teledyne's market share on Airbus aircraft has now increased from 5 percent to 20 percent. This growth is expected to continue. A strategic alliance agreement has been concluded with Airbus to jointly develop and market the next generation flight data analysis software to be sold under the brand name AirFASE.

In other commercial aircraft activities, Ryan Air, the fastest growing airline in Europe, selected Teledyne to provide Data Acquisition systems for its aircraft and is working with Teledyne to add turnkey flight data services, which will include Wireless GroundLink®, and Ground Data Analysis software. Teledyne's new SmartCabin Office™ system that provides high speed data communications via satellite link for business travelers was also introduced and delivered on multiple business aircraft types during the year.

Teledyne has also partnered with Delta Airlines to support trials of the Controller Pilot Data Link Program at the



Top left:
SmartCabin Office™ employs satellite links to provide high-speed data connectivity for business aircraft passengers.

Top right:
Broadband wireless transceivers support next-generation cellular infrastructure applications.

Bottom:
Traveling wave tubes provide high power microwave signals for modern battlefield radar.

Miami Air Traffic Control Center. This system will eventually replace most voice communications between pilots and air traffic controllers with a digital data link, reducing pilot workload and enhancing flight safety.

Telecommunications and Semiconductor Manufacturing

Orders for relays used in wireless applications and in semiconductor test equipment remained weak throughout 2002. Despite the downturn, the company introduced new RF relays and modernized its relay manufacturing facilities in California and Mexico to meet anticipated future needs. Demand for mass flow controllers and vacuum gauges used in semiconductor manufacturing equipment was also soft throughout the year.

In the cellular communications market, however, demand for Teledyne's broadband wireless transceivers, used to link base stations and cell sites in cellular communications systems, has remained steady, with activity primarily in the European and Asian markets. The company's line of products for this field was expanded with the introduction of transceivers covering new frequency bands, which will broaden market opportunities in this arena.

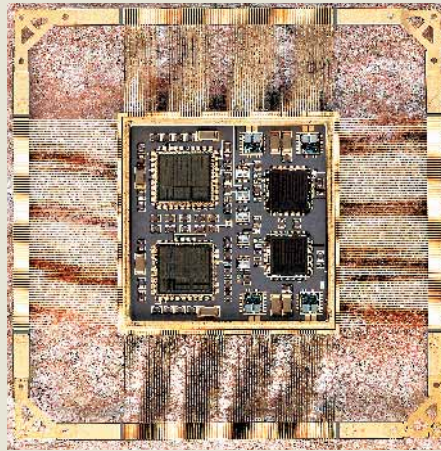
Process Control and Energy Production

Sales for gas analysis instruments, flow controllers and vacuum gauges used in process control and environmental applications remained steady in 2002, and Monitor Labs was acquired to complement our existing industrial and environmental instrument lines.

Sales of hydrophone streamer cables used in seismic surveys in offshore oil exploration were also strong in 2002, both for Teledyne-branded products and for custom-manufactured cables provided for OEM customers.

Medical Electronics

Sales of printed circuit card assemblies and electronic modules for medical instruments increased significantly in 2002. These products are used in medical instrumentation such as magnetic resonance imaging and x-ray systems, as



Teledyne manufactures custom electronic modules and circuit card assemblies for applications ranging from military communications to medical devices and instrumentation.

well as in implantable devices for cardiac, hearing, and neural stimulation applications. Certain of the company's key customers have requested the manufacture of additional complex electronic assemblies for a variety of diagnostic systems. Teledyne's manufacturing capacity for these types of medical assemblies was expanded during the year at one of the company's facilities in Tijuana, Mexico in response to increased customer demand.

New orders for custom micro-electronic modules increased in late 2002 as the company's largest implantable medical device customer began to outsource procurement of additional modules used in cardiac pacemakers and defibrillators. This was offset somewhat by lower sales of modules used in another device where a customer's products experienced reduced demand.

Focus on Niche Markets

The business units in Teledyne's Electronics and Communications segment provide a variety of products that serve a broad range of industries. This diversity provides a buffer against deep cycles that can occur in certain market segments. Despite the diversity, however, these business units share many common characteristics. Teledyne focuses on niche markets that

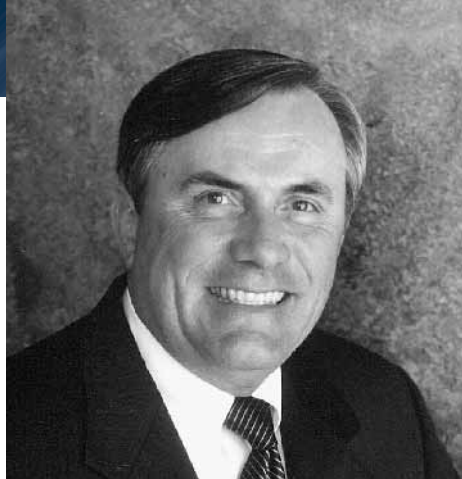
require specialized technology and the ability to develop customized solutions for unique customer needs. Many of the Electronics and Communications product lines serve regulated industries where manufacturers must not only supply high quality products, but must also have the capability and experience to ensure that the products and documentation conform to various U.S. Government agency regulatory requirements. The environmental monitoring instruments, systems and software described in the feature section of this report are good examples. These products must provide high sensitivities to detect low levels of gases that affect air quality, must operate reliably on a continuous basis, and must be qualified in accordance with the requirements of regulatory agencies such as the U.S. Environmental Protection Agency. Other business units in this segment serve similar specialized niches that are subject to the requirements of agencies such as the Department of Defense, Food and Drug Administration, Federal Aviation Administration and the Nuclear Regulatory Commission. Teledyne has the technical expertise and in-depth experience needed to meet these varied requirements.

REVIEW 2002

SYSTEMS ENGINEERING
SOLUTIONS SEGMENTTELEDYNE BROWN
ENGINEERING, INC.**James M. Link**
President

The Extended Air Defense Simulation (EADSIM) that Teledyne Brown developed and maintains for the Missile Defense Agency and the U.S. Army's Space and Missile Defense Command provides analysis, training, testing and operational planning support in modeling air, space, and missile warfare.

Teledyne Brown Engineering completed its first full year under the leadership of James M. Link, after a successful restructuring in 2001. This effort has created leaner, more flexible and responsive business units which maximize our operating efficiency and growth potential.

**DEFENSE****Technologies Group**

Teledyne Brown Engineering's Technologies Group is a full service defense contractor supporting the U.S. Army Aviation and Missile Command (AMCOM), the U.S. Army Space and Missile Defense Command (SMDC), and the Missile Defense Agency (MDA), as well as major prime contractors in this field. This group plays significant roles in diverse national missile defense areas ranging from targets and countermeasures, systems engineering, modeling and simulation, to test and evaluation, and many other related areas.

During the year, our Technologies Group participated in three significant Integrated Flight Tests in its continuing support of the Ground-based Midcourse Defense (GMD) Program. The company's Shipboard Theater Air and Missile Defense Exercise Controller software was also chosen by the U.S. Navy to train individual ships and entire battle groups in the detection, tracking and simulated engagement of ballistic missiles.

The company continued its involvement in the concept definition, design and production of tactical missile programs. One of these is the Army's

Loitering Attack Missile-Aviation (LAM-A) program, which involves a unique lock-on-after-launch loitering missile concept. Teledyne Brown is supporting the prime contractor, Raytheon Company, for this potentially major Army program.

The 43rd version of Teledyne Brown's Extended Air Defense Simulation program (EADSIM) was released in 2002. First introduced in 1989, this highly regarded software provides complex multi-force simulations of air, missile and space warfare. It is used by almost 400 agencies in ten foreign countries for defense analysis, training and operational planning.

The Technologies Group continues to work closely with the MDA in the development of the Hardware-in-the-Loop test tool for the Ballistic Missile Defense System. This tool will be used by MDA and major contractors in developing and integrating elements of the country's missile defense capability. The company was chosen for this task based on its extensive successful development of similar tools for related missile defense systems. Plans to expand participation in missile defense include involvement in upcoming opportunities such as Targets and Countermeasures, Boost Phase Intercept, and additional modeling and simulation.

Activities for the U.S. Air Force include the recent award of a contract in the Task Force Enduring Look program, designed to shape the way the Air Force equips its forces and accomplishes its strategic and tactical tasks.

Teledyne Brown's Technologies Group continued to diversify its customer base in 2002 with awards from the Federal Aviation Administration (FAA) and the U.S. Coast Guard. The company was selected by the FAA for inclusion on its nationally qualified vendor list for engineering, production, installation and maintenance services. This led to the award of a contract for the FAA's Automated

WaterSabre™ is a remote-operated ultra-high-pressure water jet cutting system, designed to give first responders the most advanced tool in safely investigating and neutralizing suspected explosive devices.

Microgravity Science Glovebox is one of the International Space Station facilities supported by Teledyne Brown from science concept and design to onboard research.

Teledyne Solutions, Inc.

Teledyne Solutions, Inc. (TSI), supports major Department of Defense customers such as the Missile Defense Agency, the Army's Space and Missile Defense Command, the Aviation and Missile Command and related defense agencies. In operation less than three years, the company has already received the Alabama Quality Award, Level 1, an award to organizations that have made a serious commitment to performance excellence concepts and principles.

In February 2002, Teledyne Solutions was awarded a multi-million dollar contract by the Army's Space and Missile Defense Command (SMDC) for Systems Engineering and Technical Assistance in disciplines related to missiles, optical and radar sensors, targets, command communications, models and simulations, and others. It is anticipated that SMDC will award as much as \$500 million in task orders over a three year period to the seven successful bidders. Teledyne Solutions has already been awarded more than \$45 million in task orders since the contract start date in April.

Photon Research Associates awarded Teledyne Solutions a multi-year subcontract valued at more than \$3 million for the development of the Missile Defense Agency's Battlespace Environments and Signatures Toolkit program. This program will develop an optical signature model for predicting the optical and radar signatures of ballistic missiles.



Surface Observation System, which provides real-time weather and other data for pilots and FAA controllers.

As a strategic subcontractor on the U.S. Coast Guard's Deepwater program, the company will provide verification, validation and accreditation services for the simulation software used in test and evaluation. This 30-year program, the largest in Coast Guard history, will upgrade the service with new ships, aircraft, command and control systems, communications and logistics.

Software development has always been a key strength in Teledyne Brown's capabilities. A major milestone was achieved in this area in 2002 when the company was awarded Capability Maturity Model (CMM) Level 3 certification from the Software Engineering Institute. This model provides a framework that describes key elements in an efficient software process, and covers practices for planning, engineering, and managing software development and maintenance. The company is currently working toward the goal of achieving CMM Level 4 in 2003.

AEROSPACE

Systems Group

Teledyne Brown's Systems Group is responsible for managing the company's role in the aerospace industry, which remains a primary company focus after almost 50 years' participation in the country's most significant space exploration programs.

In June, Teledyne Brown Engineering was selected by NASA as the prime contractor for its Microgravity Systems Development and Operations Support contract, an award that has a potential value of \$568 million through 2012 assuming appropriate levels of funding and contract task orders. The company is also a strategic subcontractor on the International Space Station (ISS) Payload Integration Contract which is a major segment of ISS work with a value of \$73 million over three years.

In recognition of Teledyne's long history of excellent performance on its Pressurants, Propellant and Calibration (PP&C) program, NASA has awarded the company a \$7 million extension of the contract, pending the next competitive award period in 2003. NASA also presented Teledyne Brown with a prestigious award for achieving a benchmark safety record of 10 years and

As systems integrator of the U.S. Army's Missile Defense Test Control Segment, Teledyne Brown provides the test operator with the capability to create, modify, and execute approved threat scenarios that drive the tactical system under test conditions.



1.5 million man-hours without a lost time accident on this contract.

Specialty manufacturing is another of Teledyne Brown's unique capabilities. In 2002, the company delivered flight-qualified hardware items valued at more than \$11 million to Boeing for use on its Cargo Integration contract for the International Space Station. Additional orders are expected. Teledyne Brown is also pursuing several other key hardware-related opportunities in 2003 including payload carrier and development hardware for the ISS, ground support systems for NASA, military hardware systems, and space-qualified satellite hardware.

In the Homeland Security arena, the company is offering its WaterSabre™ mobile fluid-jet access system to police departments and other first responders on a nationwide basis. This remotely-operated ultra-high-pressure water jet cutting system will enable safer access to suspected large-vehicle explosive devices and reduce the risk of investigating and neutralizing these devices.

Environmental Systems

The Environmental Systems unit of the Systems Group was successful in winning several contracts in 2002 in an extremely competitive market. After a rigorous five-day audit in March, Teledyne Brown was awarded a three-year extension of its Certificate of

Authorization, called an N-stamp, by the American Society of Mechanical Engineers. This certification is critical to performing work in the nuclear power industry, and was instrumental in winning a major contract for building nuclear waste containers, as well as qualifying the company for future work on spent nuclear fuel and other nuclear site opportunities.

Teledyne Brown was also certified through the Department of Energy's Environmental Management Consolidated Audit Program (EMCAP), enabling our Radiological Analysis Services Laboratory in Knoxville, Tennessee to perform radiological analytical services for all DOE sites. The laboratory also received certification from the National Environmental Laboratory Accreditation Program (NELAP) in 13 states, including Utah. About 80 percent of Teledyne Brown's clients require Nuclear Utilities Procurement Issues Certification (NUPIC), and the lab has also passed this intensive audit, giving it authority to serve the commercial utility community, which has been a significant part of our customer base for over 30 years.

Continuing support is being provided to the U.S. Army Program Manager for Chemical Demilitarization under the

six year Non-Stockpile Systems Contract II which was awarded in 2001. Work is also being concluded under the earlier NSSC-I contract received in 1995. Involved is the design and fabrication of chemical processing systems to treat and dispose of chemical warfare materiel at the Army's Pine Bluff, Arkansas facility.

Operational testing of the Rapid Response System (RRS) for the Army was completed. A follow-on contract of \$7.2 million was awarded to modify and maintain the system and its technicians for readiness to respond throughout the U.S. on short notice. A \$1.5 million contract (with a \$1 million option) to provide logistics support for Explosive Destruction Systems was also awarded.

Teledyne Brown is a strategic subcontractor on a Department of Energy contract potentially valued at more than \$10 million. Teledyne Brown's role will be to provide program management, technical assistance, and administrative services to the DOE facility at Grand Junction, Colorado. Teledyne will staff, operate and maintain the analytical laboratory there under a five-year contract.

Environmental Systems has broadened its technological base to provide solutions to a wide range of problems encountered in managing and operating government facilities, handling and disposing of hazardous wastes and removing threats to public safety. The company's exceptional strengths in engineering, manufacturing and laboratories will serve as a base for further growth in the environmental arena both domestically and internationally.

REVIEW 2002

AEROSPACE ENGINES AND
COMPONENTS SEGMENTTELEDYNE CONTINENTAL
MOTORS, INC.**Bryan L. Lewis***President*

The Continental-powered Diamond C1 was selected to provide flight training to U.S. Air Force Academy cadets.

The slow overall domestic economy in 2002 continued to adversely affect the markets served by Teledyne Continental Motors. The company continued to improve its lean operating methodologies to achieve further cost control during the year and also continued to pursue the development of products with enhanced value for its customers in order to grow market share.

**New Aircraft Installations**

Delivery of new Continental engines for advanced aircraft grew 22 percent in 2002 in spite of a nearly 13 percent global decline in the delivery of new light general aviation aircraft by airframe manufacturers. This is the result of Teledyne Continental engines being chosen for many of the new composite light aircraft now being introduced. The Cirrus Design SR20 and SR22 aircraft, for example, powered exclusively by Continental engines, have gained in popularity and finished the year with a 30% market share of new aircraft deliveries in the second half of 2002. Although relatively new to the market, the Cirrus and other composite aircraft powered by Continental engines have gained high visibility both domestically and internationally.

In 2002, the U.S. Air Force Academy selected the Continental-powered Diamond C1 aircraft as its primary flight trainer. Delivery of the first of 35 aircraft began in September 2002 and will be concluded in May of this year. Powered by Continental's 125 horsepower IO240-B engine, the C1 aircraft is gaining a worldwide reputation for reliability as a two-seat trainer aircraft, as well as an owner flown aircraft.

Other new aircraft installations powered by Teledyne Continental engines have continued to move toward FAA certification, though the process has been somewhat slowed by general market conditions. Certification and production of the Lancair Columbia 300, the all-electric Columbia 350, and the turbocharged Columbia 400 aircraft, for example, were suspended in mid-2002 due to customer start-up funding issues. However, Lancair has now successfully resolved these funding issues and is returning to normal operations.

The new two-seat Liberty aircraft, powered by Continental's electronically controlled IOF240 engine, has continued successful flight testing and is now scheduled to receive formal FAA certification this year. The Liberty XL-2 is expected to become the first fielded application of the company's Aerance Powerlink™ FADEC (Full Authority Digital Electronic Engine Control). The two engine Adam aircraft, which is also planned to be PowerLink controlled, began flight testing in 2002 and has demonstrated impressive performance.

Once again, Teledyne contributed to aviation history in 2002, when one of its engines powered the modified Columbia 300 aircraft piloted by Eric Lindbergh in his recreation of his grandfather's historic transatlantic flight. The IO550 powered Columbia made the 3263 nautical mile flight in only 17 hours and 10 minutes, consuming only 211 gallons of fuel. Shortly after that flight, Teledyne Continental Motors flight test personnel flew a FADEC powered all electric Columbia 350 demonstrator aircraft from Bend, Oregon to Lakeland, Florida, then to New York and returned to Bend as part of the company's PowerLink FADEC flight demonstration program.

PowerLink FADEC™

Teledyne Continental Motors continued its flight testing and installations development program of the PowerLink FADEC product in 2002, leading up to the formal launch of the new product at the Aircraft Owners and Pilots Association convention in October. However, due in large part to delays in airframe manufacturer installations, production deliveries have not yet been realized. The company still expects the PowerLink FADEC system to be installed as standard equipment, or as optional equipment, on the Liberty XL-2, the Diamond C1, the Cirrus SR22, Lancair 350 and 400, and the Adam 4000 twin engine aircraft.

In addition to the introduction of the PowerLink FADEC on new certified aircraft, the system was given a Supplemental Type Certificate (STC) by the FAA in September for installation on a number of existing Beech Bonanza aircraft. Additional aftermarket STC installations for other existing fleet aircraft are also in progress.

In a significant test of the system, carried out in 2002, the ability of the PowerLink system to operate existing fleet engines on premium automotive fuels was demonstrated. These test results demonstrated the possibility that many piston aircraft engines may be able to operate on nonleaded fuels at some point in the future.

Advanced Manufacturing Cell for Small Turbine Engines

Full operational status was achieved in 2002 by the company's new Advanced Manufacturing Cell in Mobile, Alabama. This facility produces components for the small Teledyne turbine engines that power the Joint Air-to-Surface Standoff Missile (JASSM) and Harpoon tactical missiles. Designed to help meet the demand for low cost engines for precision strike weapons, the Advanced Manufacturing Cell has



Continental-powered Cirrus aircraft have become an industry success story, capturing a near 30% market share.

demonstrated component manufacturing cycle times that are at or below the targets for full production, even in the low rate phase of initial production. The new cell will also produce selected components for the company's J69 spare parts supply.

During the year, the Teledyne J402 engine continued to perform well in flight tests of the Lockheed Martin JASSM missile. Fourteen production prove-out units for the Advanced Manufacturing Cell were completed, and low rate initial production of the first 76 units has begun. This state-of-the-art manufacturing capability positions the company to meet the challenging cost targets inherent in programs of this nature, and to take advantage of the growing interest in small unmanned air vehicles for military and homeland defense applications.

Battery Product Developments

Teledyne has continued to expand the number of aircraft installations for its well-known Gill™ brand aircraft batteries through the development of new FAA Supplemental Type Certificates, and Parts Manufacturer Approvals for the business jet and helicopter segments of the industry. Part of this effort has been the introduction of a new generation of Sealed Recombinant Technology batteries that provide a lower maintenance battery installation. This advanced line was successfully launched in 2002 for the popular Bell 206 helicopter and Beech 400A, and various Raytheon, Cessna, Piper and Aerostar aircraft.

In a joint effort with Teledyne Controls, the company has also developed an onboard charging and cockpit display kit that permits existing NiCad battery systems to be replaced with Gill valve regulated lead acid batteries. This 'smart' battery technology can provide overall life cycle cost savings for aircraft fleet operators. During the year an agreement

was signed to install this system on the popular Bombardier CRJ series aircraft.

Other advances in battery reliability and power density have been achieved through the company's continuing program of product development and lean manufacturing process improvements. The effectiveness of these programs is attested to by the fact that Gill's warranties are now less than 1 percent of sales, a noteworthy achievement in battery manufacture. These and other quality initiatives now also permit same day shipment of orders with 40 percent smaller inventories.

Further development of the Gill 'smart' lead acid battery product as an alternative to NiCad technology, and continued development of alternate engineering and manufacturing techniques will be pursued in 2003 to assure that Gill Aircraft Batteries remain the premium product for that market.

Pursuing Manufacturing Excellence

In 2002, the company's manufacturing excellence program achieved impressive cost reductions without compromising product quality. These results have spanned the Teledyne Continental Motors product lines from general aviation piston engines and engine control systems to military and defense related small turbine engines, and aviation battery products. With capital upgrades to facilities completed in 2002, further cost reductions are still achievable in overall manufacturing operations through the implementation of six-sigma quality management systems.



The innovative Continental manufacturing operations control center provides for increased levels of monitoring and control of purchasing, manufacturing, quality, and customer service data without increasing administrative support costs.

REVIEW 2002

ENERGY SYSTEMS
SEGMENTTELEDYNE ENERGY
SYSTEMS, INC.**Rhett C. Ross**
President

Following the combination of Teledyne Brown Engineering's Energy Systems business unit with assets and intellectual properties of Energy Partners, Inc., Teledyne Energy Systems completed its first full year of operation in 2002 with consistent performance in its government contracting and hydrogen generator activities. This was offset by the higher costs of phasing out poor performing products. During the year research and development efforts were increased, resulting in advancements in hydrogen generator, fuel cell system, and fuel cell test station product lines.



Teledyne Energy Systems has a rich history of developing and manufacturing high reliability power systems and electrolytic hydrogen and oxygen generators. This experience is used in applications ranging from industrial processes to fuel cell development, and to provide power for remote, unattended installations such as gas pipeline monitoring stations, and manned and unmanned space programs.

Many of Teledyne Energy Systems' products are designed to operate in virtually any location, often under extreme conditions, with a minimum of human intervention. A milestone that is an example of this was recently achieved by the Teledyne thermoelectric power source aboard the Pioneer 10 spacecraft which was launched in 1972. Now 7.6 billion miles from earth, traveling at 27,000 miles per hour, this 31 year old system is still operating, with the latest successful radio contact made on January 22, 2003. The company is applying this same commitment to advanced design and high reliability in its newest product lines of fuel cells, fuel cell test equipment, and Stirling Engine electrical power generating systems. Another milestone achieved in 2002 was the sale of the 455th Titan™ Hydrogen Generator for use in industrial hydrogen gas production. During the year the

company's product offerings were further expanded with the introduction of the Teledyne Titan™ H₂Oasis Hydrogen Generator, the Teledyne Medusa™ LS Fuel Cell Test Station, and the Teledyne FTU2 Fuel Cell Generator demonstrator.

**Advanced Power
Systems and Thermoelectrics**

Teledyne Energy Systems' oldest product line, Advanced Power Systems, utilizes the company's expertise in thermoelectric materials and systems, proton exchange membrane (PEM) fuel cells, and Stirling Engine systems to provide custom power generators for a variety of commercial and government applications. Teledyne's thermoelectric generators are used by diverse customers ranging from NASA to major oil and gas pipeline operators who use them to supply power in remote, extreme environments where high reliability is expected. Long experience in this area has enabled the company to develop a number of fuel cell and Stirling engine products with long term potential.

Under a NASA Glenn Research Phase I contract, Teledyne Energy Systems has designed an advanced PEM fuel cell power



Pioneer 10 powered by Teledyne Energy Systems' thermoelectric generators leaves the solar system on its way into deep space.



Teledyne Perry series NG2000 PEM fuel cell used in simulated automotive power testing.



Top left:
Teledyne Perry series NG2000 PEM fuel cell stack undergoing assembly.

Top right:
Combustion zone of a natural gas thermoelectric generator.

Bottom:
Thermoelectric ingot used to produce thermoelectric elements for power generation.



Teledyne Energy Systems' state-of-the-art fuel cell stack, fuel cell systems and fuel processing system laboratory.

plant for NASA's Second Generation Reusable Launch Vehicle that has proved highly successful. A subscale working prototype will be delivered in early 2003, and if this design is successful Phase II full scale development will begin during the year. This contract also led to the award of a PEM fuel cell subcomponent life testing contract aimed at proving that PEM technology can meet the stringent expectations of manned space flight.

Teledyne Energy Systems has also continued its work in Stirling engine power generation systems through participation in several design studies. These studies looked at the feasibility of using small Stirling engines as an alternative to thermoelectric generators where fuel efficiency is of greater concern than maximum reliability, though reliability is still a design criteria. These studies, which were delivered to customers at the end of 2002, will lead to technology demonstration projects in 2003.

Hydrogen/Oxygen Generators

Teledyne Energy Systems' hydrogen/oxygen generator business focuses on engineering and manufacturing a full line of gas generators based on the electrolysis of water. Marketed under the trade name Teledyne Titan™, these highly reputed products deliver high purity hydrogen and oxygen at rates from 50 standard liters per minute to 1250 standard liters per minute. Teledyne Titan™ gas generators are used worldwide in electrical power generation plants, semiconductor manufacture, optical fiber production, chemical processing and many other industrial processes.

In early 2002, the company delivered its first completely pre-assembled, enclosed hydrogen generation/compression system known as the Teledyne H₂Oasis™. This turnkey plant, provided in a fully equipped transportable building, is designed to meet

the near term needs of industrial customers and provides a basis for responding to the gradually increasing demand for hydrogen refueling equipment.

PEM Fuel Cell Test Stations

Among Teledyne Energy Systems' newest commercial products are high quality, automated test systems for developers of fuel cell components and stacks. Marketed under the trade name Teledyne Medusa™, these units support testing of fuel cell power levels of up to 1000 watts. They are used in fuel cell development for design verification, component research and development, and endurance, quality and benchmark testing. The company delivered 27 systems in 2002 to 11 customers. In addition, Teledyne entered into a long term supply contract to supply up to 32 Medusa RD™ test stations over a four year period to a large fuel cell component manufacturer for use in its test laboratory. To date, eight units have been delivered under this contract.

2002 also saw the introduction of the Teledyne Medusa LS PEM fuel cell stack test system. Thus, Teledyne is now able to provide state-of-the-art test equipment to fuel cell stack developers and integrators, as well as fuel cell component developers. The new unit is rated for PEM fuel cell stacks up to 10 kilowatts, and includes the company's proprietary control software as well as its industry leading humidification technology. Customers for this system are expected to include automobile companies, stationary power system integrators, certification laboratories, and fuel cell manufacturers.

PEM Fuel Cells

Teledyne Energy Systems has now established a competitive position in the PEM fuel cell development market through its combination with Energy

Partners. Experience in this field, over the past decade, includes building over 580 PEM fuel cell stacks, completing more than 100,000 hours of testing, building 20 systems, and demonstrating the first residential sized natural gas fuel cell generator. Thus, the company is now fully equipped to enter the PEM fuel cell arena by taking orders for PEM fuel cell stacks and participating in fuel cell development projects.

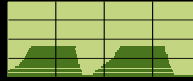
Efforts were focused in 2002 on advancing the state-of-the-art of PEM fuel cell stacks in support of applications in all market sectors, but with the greatest emphasis on the aerospace and military markets. These latter programs require reliability, high performance and low weight, over flexibility of use and cost. Designs developed for military markets are applicable to commercial applications.

In 2003, a primary focus will be to introduce an advanced fuel cell stack to supplement the company's proven Perry NG2000 and NG3000 fuel cell stacks.

Teledyne Energy Systems' mission is to remain a leader in technology solutions for high reliability thermoelectric, electrolysis, and PEM fuel cell applications. The company enters 2003 with a broader customer base and with contracts in both government engineering design and services, as well as in commercial products. With improved production lead times, responsive customer service and better use of capital, Teledyne Energy Systems is achieving a highly competitive position in the industry.

Teledyne
Instruments,
a newly
formed group
of business
units,
consolidates
our company's
expertise in
precision
instrumentation
under one
management,
and adds two
new acquisitions
in this field.

DETECTING,



MEASURING,



CONTROLLING

2.002



From industrial process control to monitoring air pollution, from medical anesthesiology and neonatal life support systems to monitoring the safety of nuclear power plant valves, from exploring the sea bottom for new sources of oil to food and pharmaceutical production, these are a few of the areas that require the precision instrumentation products this group of business units produces.

Four of the six companies that make up Teledyne Instruments have long histories at Teledyne. These are: Teledyne Analytical Instruments; Teledyne Hastings Instruments; Teledyne Geophysical Instruments; and Teledyne Test Services. Two others, Advanced Pollution Instrumentation and Monitor Labs, were recently acquired because both have very close relationships to our existing businesses. Advanced Pollution Instrumentation, in fact, has been both supplier to and customer of our existing instrumentation companies. Both companies bring important synergies in the markets served, and the worldwide customer bases they provide.

Teledyne Analytical Instruments

For over half a century, Teledyne Analytical Instruments has been a leading innovator and producer of instruments for detecting and precisely measuring various chemical compounds at concentration levels down to trace amounts, measured in parts per million and even parts per billion. This capability is vital in many industrial processes in the chemical and petrochemical industries, in oil and natural gas refining, in the cryogenic separation of air into its constituent gases, in the production of pharmaceuticals, in plastics manufacturing, in packaging food products, and in semiconductor applications. It is also necessary in monitoring the combustion processes of



Oxygen analyzer in explosion-proof housing for use in hazardous applications.

electrical power generation plants and industrial facilities, as well as in measuring ambient air quality to meet local and federal regulations.

Teledyne Analytical Instruments is well known for its expertise in monitoring oxygen in trace amounts, using several different

sensor technologies, and for instruments that detect and measure carbon monoxide, carbon dioxide, sulfur dioxide, hydrogen, hydrogen sulfide, hydrocarbons, chlorine, moisture and other substances in extremely low concentrations. These instruments must provide laboratory-quality precision in rugged, reliable on-line devices, often in harsh and hazardous environments.

Industrial process control is a major market for the company's products, with the air separation and petrochemical industries forming a large part of that business. The purity of gases produced by cryogenic gas manufacturers is vital in ensuring the high quality of products ranging from steel to semiconductors, in food and beverage product preservation, in hospital/medical-grade gases, and in many other diverse applications. In the hydrocarbon processing industry, the company's instrumentation is involved from the point at which crude oil is drawn from the earth to the ultimate processing of various polymers needed to manufacture a wide variety of plastics used in everyday life. Literally hundreds of industrial processes and products require precise monitoring and control of the purity of the materials used, in order to assure product quality, process efficiency and safety. These are the markets served by Teledyne Analytical Instruments' products.

A second major area of sales is to original equipment manufacturers who

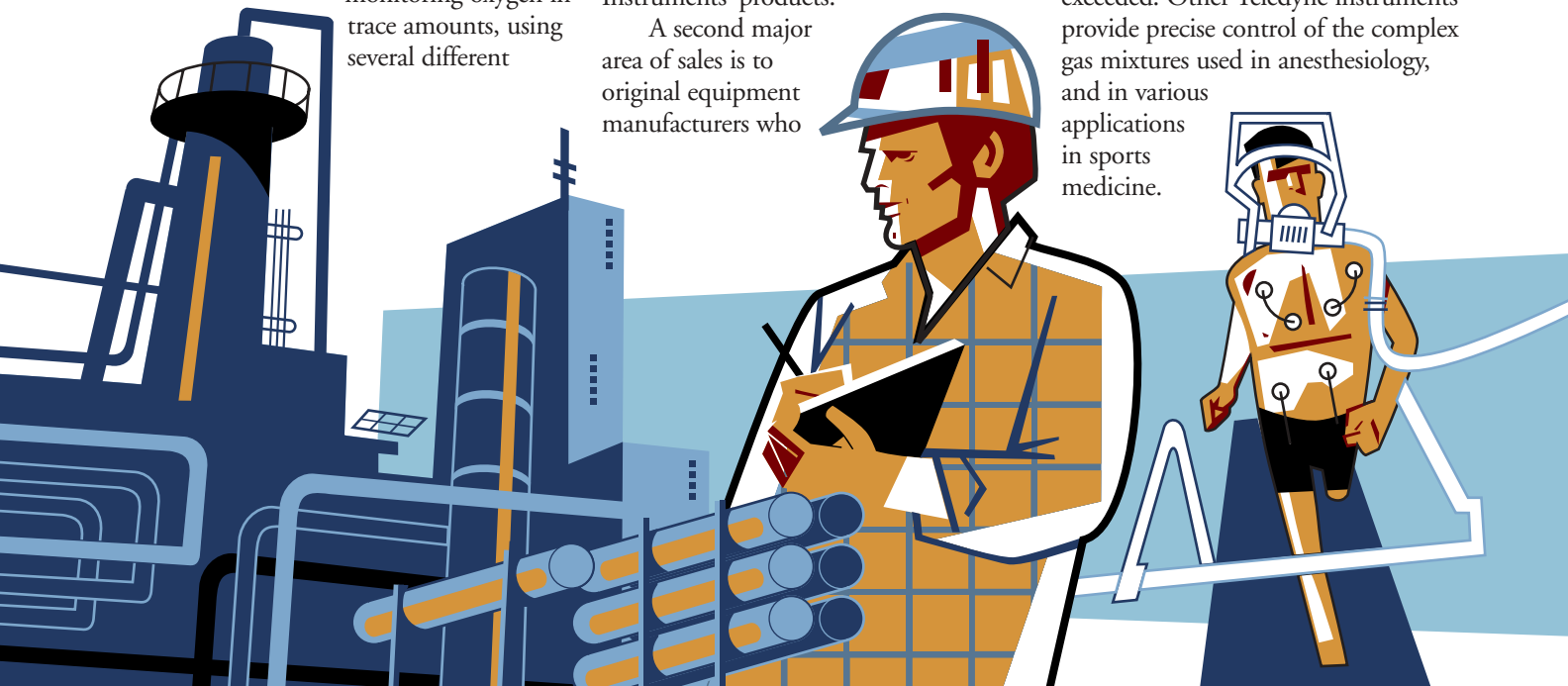
use Teledyne electrochemical sensors in the production of their own monitoring instruments. This includes major manufacturers of medical instrumentation, the automotive industry for use in emissions control applications, and producers of diving analyzers for precise control of the breathable gas mixtures used in deep dives for undersea exploration and shipwreck investigations.



Portable medical oxygen monitor.

The quality, reliability and wide-ranging capabilities of Teledyne sensors have made them the product of choice in these applications.

A third important product area is the company's line of turnkey medical monitoring devices that provides hospitals with oxygen analyzers for use in neonatal units, in anesthesiology and in life support systems for respiratory patients. These are microprocessor-based instruments that provide visual and audible alarms if preset limits are exceeded. Other Teledyne instruments provide precise control of the complex gas mixtures used in anesthesiology, and in various applications in sports medicine.





**InstaTrans™
monitoring system
for trace oxygen
detection in
petrochemical
industry.**

Many different technologies are used in detecting and measuring various gases. One of Teledyne Analytical Instruments' best known products is the Micro-Fuel Cell, an electrochemical sensor specific to oxygen. It is a galvanic sensor that acts as a battery and generates an electrical output signal that is linear from 0 to 100 percent in the presence of oxygen. Other sensors include a newly patented, high sensitivity bi-potentiostat-driven parts-per-billion oxygen sensor powered by a precisely controlled electrical voltage. It permits an electrical current to flow when undesirable oxygen impurities are present in the ultra-high-purity bulk gases used in semiconductor manufacture. Photometric detectors, based on the principle that various chemical compounds absorb specific wavelengths of light, including those in the ultraviolet and infrared regions, are used for both gas and liquid phase analysis. Still other techniques are based on detecting the thermal conductivity of a gas, typically for hydrogen analysis, and flame ionization sensors for detecting trace amounts of hydrocarbons.

Over the years, Teledyne Analytical

Instruments has acquired a deep understanding of the physics of measuring specific chemical compounds, and expertise in developing sensors for continuously detecting them. Based on the wealth of detection technologies at its disposal, the company can provide over a hundred different analyzer configurations to meet the needs of virtually every industrial application. This product range is routinely extended by developing turnkey system solutions tailored to a customer's exact needs. The expertise and flexibility to design and manufacture proven, cost-effective sample preconditioning systems, as well as the ability to combine multiple analyzers in a single package, is a core competency of Teledyne Analytical Instruments that effectively differentiates the company from many of its competitors.

In order to deal efficiently with the many configurations possible with these sensors to meet customer needs, the company has developed a feature-rich analyzer platform that can interface with these various sensor technologies in order to achieve economies of scale where circuit boards, power supplies, and instrument housings are concerned. The net result has been streamlined production, quicker delivery and ease of servicing. With the addition of some limited hardware, this platform can be made Ethernet-ready, allowing users to remotely access the analyzers via the Internet.

A substantial part of the market for these instrumentation products is overseas. Teledyne Analytical Instruments is well positioned to serve this market with more than 45 well-trained

international distributors, and a total of over 70 sales outlets. The addition of the two new instrument companies to Teledyne will further enhance the company's international market position.

Teledyne Hastings Instruments

Teledyne Hastings is another veteran Teledyne company. Founded in 1944, it was acquired by Teledyne in 1968.

Throughout the years, one of its major focuses has been on the development and production of instruments for the precise measurement and control of vacuum levels in many industrial and scientific processes. Today, the company's vacuum instruments are used in virtually every application that involves the measurement and control of vacuum. These include semiconductor manufacture, the refrigeration and air



**Wide range thin film
vacuum sensor and
controller.**

conditioning industry, metallurgy, food processing, pollution monitoring and control, and the production of electric lights and neon signs, to name just a few. Teledyne Hastings instruments are also found in government, industrial and academic research and development labs around the world.



Throughout its history, the company has been a leader in developing advanced methods of precise vacuum measurement. One of its most versatile and innovative instruments is the wide range Model 2002[®] Dual Vacuum Sensor which provides measurements from above atmospheric pressure to a vacuum of 10^{-4} Torr, which is at the upper end of the high vacuum range, all in a single, small rugged package. At that vacuum level the number of gas molecules present in a given volume is only approximately one ten millionth of the number found in an equivalent volume of ambient air. Many metallurgical processes such as melting,



Digital mass flow controller.

casting, sintering, heat treating and brazing benefit if done under this vacuum level. Chemical processes such as vacuum distillation and freeze drying also need this level of vacuum. Freeze drying is used extensively in the pharmaceutical industry in the preparation of vaccines and antibiotics, and in the storage of tissue samples and blood plasma, and the food industry uses freeze drying to prepare many products.

The Model 2002[®] Dual Vacuum Sensor led to the naming of Teledyne Hastings Instruments by the editors of Research and Development magazine, as the developer of one of the most significant new technologies worldwide, in its prestigious R&D 100 listing for 1999. The Model 2002[®] is considered a breakthrough in its field not only for its small size, but for its wide sensing range, durability and cost effectiveness in a wide range of applications. This award is the second R&D award for work in this technology the company has received in a four year period.

Teledyne Hastings Instruments' second major area of expertise is in the precise measurement and control of gas flows, a capability that is vital in a great variety of industrial and scientific applications including research and development activities, vapor deposition, leak testing, gas blending, pollution monitoring, medical research, gas chromatography and semiconductor production support services.

These measurements are made by the company's extensive line of instruments that use thermal mass flow sensors based on thermocouple technology. Teledyne Hastings Instruments has had more than 50 years' experience in the development and perfection of this technology. These instruments have a very wide range of flow capacities ranging from a few cubic centimeters of gas per minute, up to thousands of liters per minute, and are available in both analog and digital versions. The recently introduced 300 Series Metaline[®] meters and controllers, using metal seals, accurately measure gas flow without



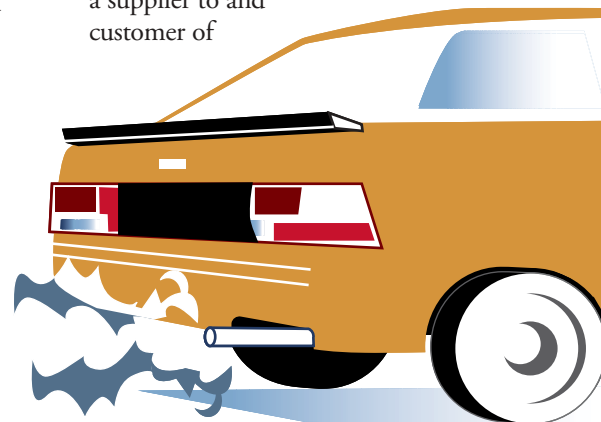
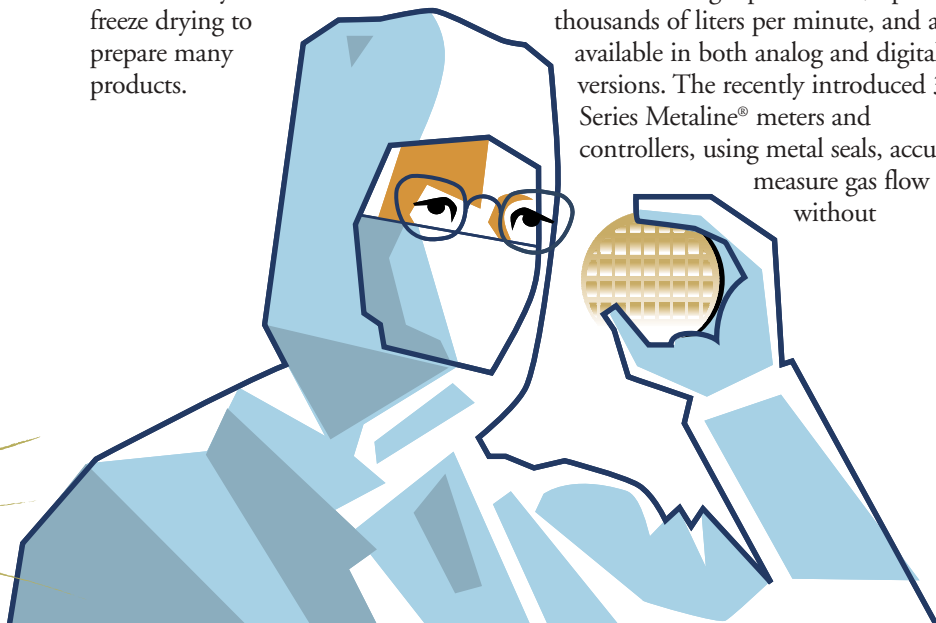
Wide range vacuum sensor for OEM applications.

corrections or compensation for gas pressure or temperature.

An important competitive feature of these instruments is their modular design with a field replaceable sensor that greatly reduces maintenance downtime. Modular design also offers adjustable range capabilities, in-line filtration and replaceable electronics, providing the user with maximum flexibility in adjusting their system to meet changing requirements. These flow instruments are available in analog or digital versions.

Teledyne Advanced Pollution Instrumentation, Inc.

Advanced Pollution Instrumentation, one of Teledyne's newest companies, was acquired in November 2001. It is a major producer of air quality monitoring instrumentation that complies with the Environmental Protection Agency (EPA) requirements for measuring ambient air quality. These instruments measure and monitor trace levels of gases such as carbon monoxide, sulfur dioxide, nitrogen oxides and ozone that contribute to air pollution in large urban and industrial areas. Well known to Teledyne, the company has been both a supplier to and customer of



Teledyne Instruments, having had relationships with our Analytical Instruments and Hastings Instruments businesses for a considerable time. This close relationship and overlapping of technologies, markets and customer bases made Advanced Pollution Instrumentation an ideal candidate for our program of selective and focused growth through acquisitions as well as through organic growth.

This acquisition has greatly expanded Teledyne's activities in the air pollution control market. Teledyne API products are found in some of the largest and most critical air quality networks in the world. Networks in Mexico City, Malaysia, Thailand, Santiago and Shanghai are major users of Teledyne API products. These products are used in more than 50 countries worldwide, and in every state in the U.S. Key markets for future growth of these instruments are overseas in areas such as Eastern Europe and in China and other Asian countries where air pollution is a problem and efforts are being made to bring air quality up to western standards. These instruments are also provided under private label to many other resellers around the world.

API's success in this competitive international market is due to several factors. One is the state-of-the-art microprocessor technology used in the design of these

instruments which contributes to their performance, reliability and ease of operation



Next generation of advanced electronics with Internet connectivity.



Air quality monitoring instrument for sulphur dioxide.



High level ozone monitor for semiconductor quality control.

and maintenance. The second is the company's world class sales and service network of distributors who provide engineering service as well as maintenance, repair and the quick availability of spares.

API instruments are electro-optical devices capable of making measurements down to the parts per billion level, using ultraviolet photometric, chemiluminescent, ultraviolet fluorescent, and non-dispersive infrared technologies. These technologies also have application in areas other than ambient air quality.

One of these areas is the continuous monitoring of emissions from the stack

gases of power generation utilities, and many other industrial processes that involve combustion. This was one of the original specializations of the company, and has continued to be a growing market area.

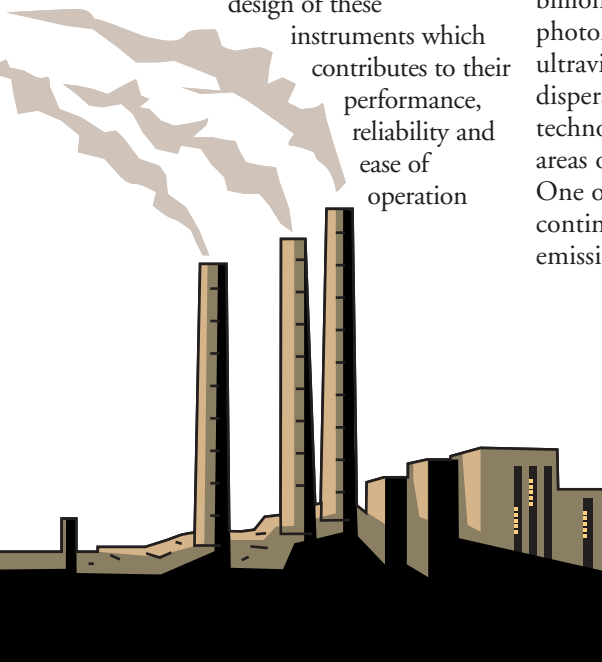
Another example is ozone monitoring. While ozone is a pollutant in ambient air, it is also an increasingly important process gas used in many applications, from municipal water and waste water treatment to semiconductor production. API has developed a family of ozone monitors for use in these applications as well.

There is a close relationship in technologies, markets and customer bases between API and the other Teledyne instrumentation companies including Analytical Instruments, Hastings Instruments and Monitor Labs. Synergies between these companies should lead to advances in new product development and market penetration, as well as economies of scale in production and distribution.

Teledyne Monitor Labs, Inc.

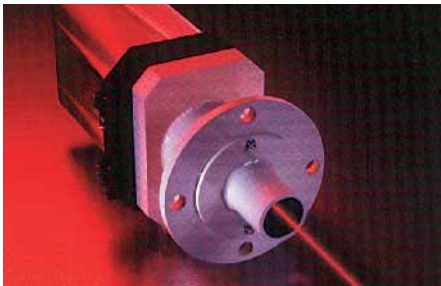
Teledyne's most recent acquisition approaches air pollution from another angle—at its source—and gives even greater depth to Teledyne's activities in the air quality market. Monitor Labs, acquired in September 2002, specializes in systems that continuously monitor, measure and record the levels of air polluting gases, such as sulfur dioxide, nitrogen oxides, carbon monoxide, and particulate matter as they are emitted from the smokestacks of power generation plants and other industrial facilities. This

continuous monitoring is required to meet EPA



reporting requirements. With its more than 30 year history, the company is a leader in providing systems that meet these regulatory demands. These products use similar sensors to those produced by Teledyne's other instrumentation companies, so once again there is a close relationship in technologies.

Three major types of systems are provided. 'In situ' systems are mounted directly on the stack itself, and send data to a ground-based recording system. Other systems known as extractive systems extract gases from the stack and transfer them to ground based monitoring systems. In one major type of extractive system the gases are diluted with instrument air at a ratio of about



Laser based particulate matter monitor.

100 to 1, and the measurements are made on the resultant mixture. In other extractive systems, where the pollutant gases are in relatively minor concentrations, such as the exhaust from some gas fueled turbine generators, they may be measured without dilution.

Teledyne Monitor Labs is also the country's largest supplier of opacity monitoring systems that precisely measure the amount of particulate matter emitted by industrial smoke stacks. A producer of this type of equipment



Continuous emissions monitoring systems.

for nearly 30 years, the company has developed it to a high degree of perfection. Its model 560 LightHawk® Opacity/Dust Monitor is the latest state-of-the-art version that provides precision measurements with high reliability under the hostile conditions of industrial applications, assuring customers of years of EPA-compliant performance.

Measuring flow and temperature of the gases that pass through industrial stacks is another measurement that must be made to assure compliance with emission standards, and this is another area in which Monitor Labs is a leader. The company's Ultraflow 150 is a state-of-the-art system with patented features that offer customers incomparable performance, accuracy, and flexibility. Using ultrasonic technology with digital signal processing, it is a non-contacting system that avoids or mitigates many of the maintenance problems that plague other systems.

Teledyne Monitor Labs is unique in that it provides complete turnkey continuous emission monitoring (CEM) systems that include all the required software, instruments and systems

integration to provide the records and reporting needed to meet EPA regulations. A software package is also provided that permits the automatic reporting of information over the Internet as an electronic file, greatly reducing customer workload in meeting these requirements. Monitor Labs' outstanding service support includes installation supervision and startup certification, as well as complete routine and emergency technical assistance, spare parts, repairs and customer training as needed.

Most U.S. power generation utilities have Monitor Labs instruments, systems or software installed. Other major



LightHawk® opacity monitor.

customers for these products include the petrochemical, pulp and paper, and cement manufacturing industries, as well as university and government laboratories. This is a high cost of entry business because of the regulatory requirements that must be met, as well as the difficulty of penetrating this market.



Teledyne Monitor Labs is a well-known and respected supplier of this equipment and is a top tier player in this market with tens of thousands of systems already installed and in operation.

At present, most of Teledyne Monitor Labs customers are in the United States, but there is a very large market for these products overseas as well, and an effort is being made to penetrate this market with the help of Advanced Pollution Instrumentation and Teledyne Analytical Instruments, which already serve the international market and have excellent overseas distribution networks.

Teledyne Geophysical Instruments

Teledyne Geophysical Instruments is one of the world's leading independent producers of hydrostreamer systems used in marine exploration for sub-sea-bottom deposits of oil and natural gas. The principle of marine seismic exploration consists of initiating a series of sharp acoustic impulses in the water and then recording the faint individual echoes that are reflected by the various geologic strata beneath the sea bottom. From this information, a model of the undersea structure can be reconstructed for the



Cables to conduct geophysical exploration.

survey area, and from this the likelihood of finding oil or gas deposits in that area can be deduced. In practice these surveys are carried out by marine vessels capable of towing 12 or more arrays of streamer cables with a series of hydrophones



PGS Ramform seismic vessel utilizing Teledyne hydroacoustic streamer.

(essentially sensitive underwater microphones) spaced along their length.

These cables may be as much as 10,000 meters long with more than 10,000 hydrophones. The impulses sensed by these hydrophones are recorded by data acquisition equipment aboard the survey vessel for later analysis and interpretation. By improving the odds of finding hydrocarbon deposits at a given location, these surveys greatly reduce the financial risk incurred by petroleum production companies in offshore drilling ventures.

Marine seismic surveys are usually carried out by independent survey companies who sell this data to petroleum production companies. In earlier years, Teledyne was involved in this business. Today, Geophysical Instruments is focused on manufacturing hydrophones and complete streamer cables and arrays, as well as some ancillary equipment, used by other survey companies. For over thirty years these Teledyne products have been the standard of the industry. The company's program of manufacturing excellence, stringent quality control and continuous product improvement have made it the provider

of the industry's most reliable streamer cable systems. There is a large international market for these products, and today many of the world's finest commercial seismic research vessels use Teledyne's products.

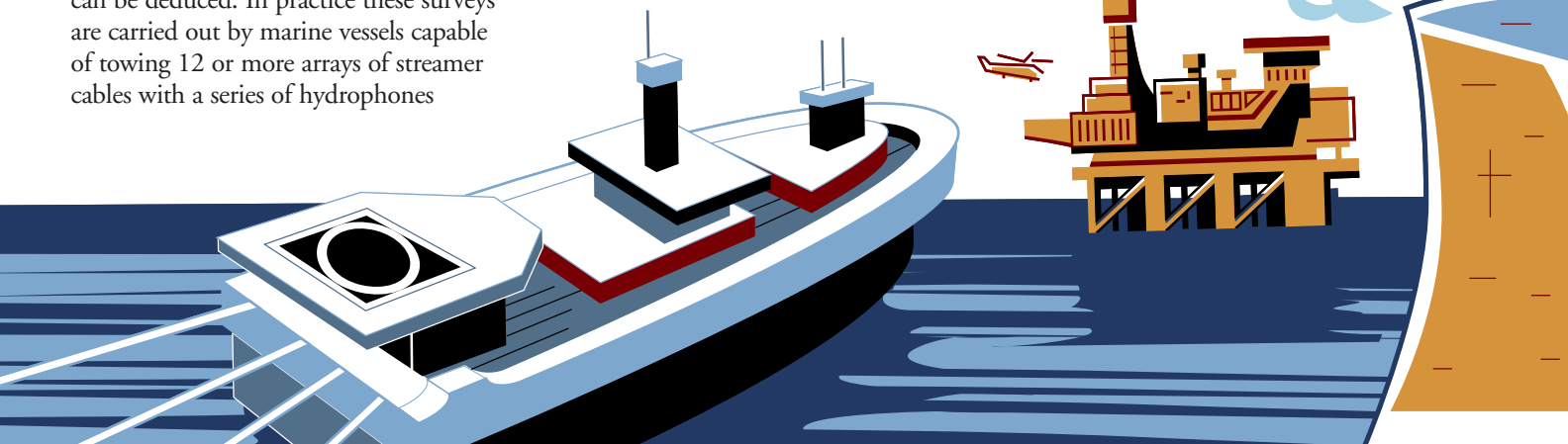
In addition to the design, production and stringent testing of these systems before delivery to the customer, Teledyne Geophysical Instruments provides worldwide service and repair from its facilities in Houston, Texas, and Gloucester, England, for its own equipment and that of other companies.



Geophysical hydrophone.

The company also manufactures hydrophones, towed arrays and other equipment, to customer specification, for other firms in the seismic survey business. Since these companies often serve markets that Teledyne does not, this further expands the company's market for these products.

Teledyne Geophysical Instruments' extensive knowledge of underwater acoustics and towed arrays has led to participation in defense related markets for these products in



which cables are towed either by U.S. Navy surface vessels or submarines in sonar applications. The company is presently involved in developing and supplying systems for torpedo detection and countermeasure systems. Successful sea trials of a Teledyne towed array system took place earlier in the year, and the company has accepted invitations to participate in other similar towed array projects, which will take advantage of its expertise in design, engineering, manufacturing and documentation of these products.

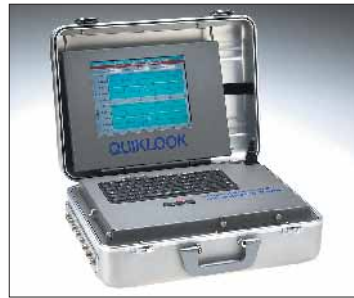
Teledyne Test Services

Teledyne Test Services specializes in products and services for the precise measurement of torque and force in mechanical systems. These measurements are made using strain gages, thin wafer-like devices which, when bonded to a mechanical part, can sense the stretching or other deformation of the part down to a millionth of an inch. They are also used in specialized form for measuring torque. The company makes a number of different sensors using these devices, to meet various measuring requirements.

One of the most important applications, and largest part of the company's business, is providing nuclear valve testing service for the nuclear power industry. Every nuclear power plant has approximately 150 motor-operated valves related to the safe

operation of the system. In 1989 the Nuclear Regulatory Commission mandated that these valves be monitored and tested on a periodic basis.

Teledyne Test Services has a number of patented products that are supplied to the nuclear industry for this purpose, as well as a proprietary data acquisition system called QUIKLOOK for recording and analyzing this information. Teledyne Test Services' personnel visit these nuclear plants during scheduled plant outages and perform tests on a percentage of the safety-related valves during each visit. A specialized strain gage called a Quick Stem Sensor is bonded directly to the



QUIKLOOK valve diagnostic system.

stem of the valve and measures torque and thrust as the valve is actuated. The company also offers the nuclear power industry a program called an Integrated Valve Team in which their valves are not only tested but maintained as well.

Another major market for these products and services is the automotive industry. Each year automobile manufacturers produce hundreds of test vehicles in their development of new and

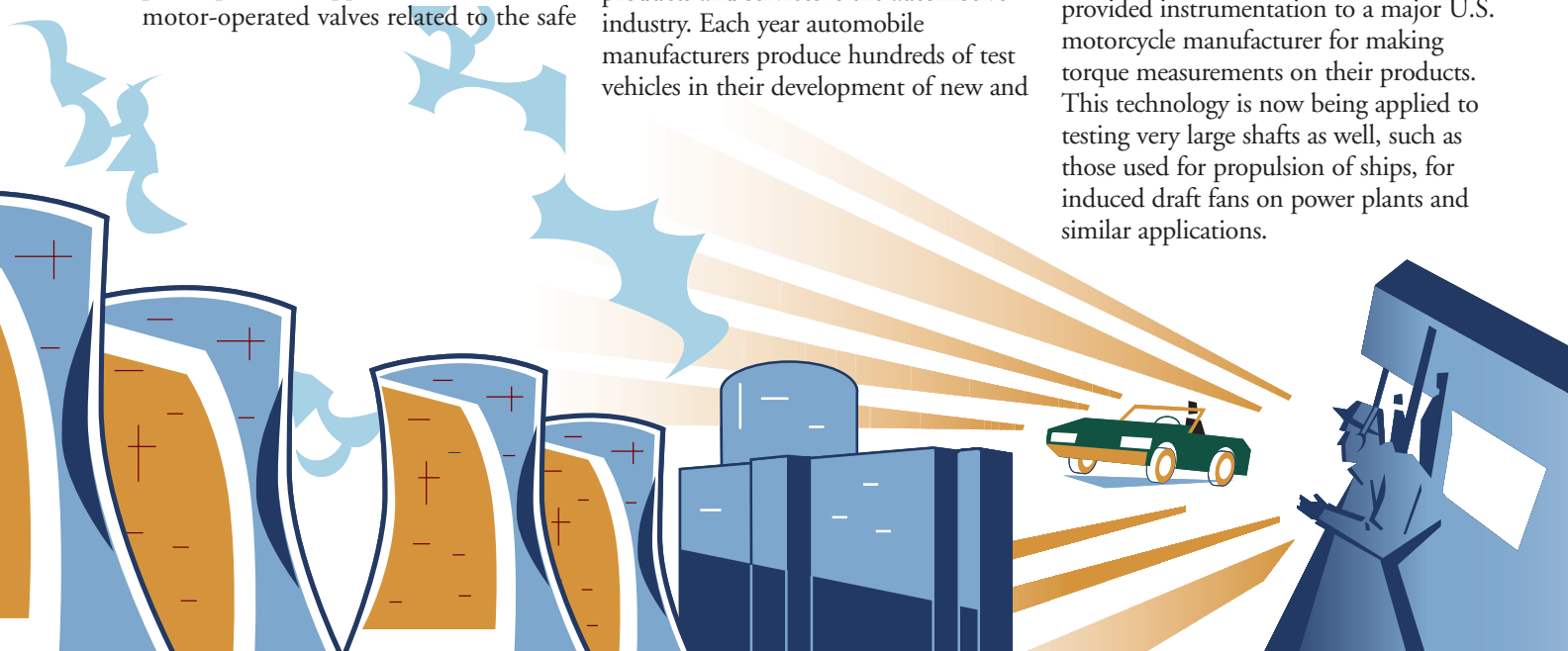


Automotive torque sensor.

improved products. Teledyne Test Services specializes in providing these manufacturers with instruments for measuring torque in their development programs. The company has developed special sensors for testing front wheel drive and rear wheel drive systems, as well as for use on the engine's flex plate to measure engine pulses or transmission shift patterns.

Services for these applications are unique in that an actual component supplied by the manufacturer is instrumented by Teledyne Test Services as a torque sensor. The manufacturer can then simply install the part ready for testing. One interesting program for one of the large automotive companies was instrumenting a number of vehicles that were then driven by customers for three years. Information was downloaded every two months and the company gained important insights into the driving habits of their customers and how this affected the performance of their vehicles.

Teledyne Test Services has also provided instrumentation to a major U.S. motorcycle manufacturer for making torque measurements on their products. This technology is now being applied to testing very large shafts as well, such as those used for propulsion of ships, for induced draft fans on power plants and similar applications.



EXECUTIVE MANAGEMENT

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 Chief Executive Officer*

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*Senior Vice President,
 Chief Financial Officer*

John T. Kuelbs*
*Senior Vice President,
 General Counsel and Secretary*

Dale A. Schnittjer*
Vice President and Controller

James M. Link
President, Teledyne Brown Engineering, Inc.

Bryan L. Lewis
President, Teledyne Continental Motors, Inc.

Rhett C. Ross
President, Teledyne Energy Systems, Inc.

Robert W. Steenberge
Chief Technology Officer

Ivars R. Blukis
Chief Risk Assurance Officer

Robyn E. Choi
*Vice President of Administration
 and Assistant Secretary*

Melanie S. Cibik
*Vice President,
 Associate General Counsel
 and Assistant Secretary*

Shelley D. Green
Treasurer

* Section 16 Officer

DIRECTORS



Robert P. Bozzone ⁽¹⁾⁽³⁾
*Chairman,
 Allegheny Technologies
 Incorporated*



Frank V. Cahouet ⁽¹⁾⁽²⁾
*Retired Chairman and
 Chief Executive Officer,
 Mellon Financial Corporation*



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 Earth Tech*



Charles Crocker ⁽²⁾⁽³⁾
*Chairman and
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*Chairman, President and
 Chief Executive Officer,
 Teledyne Technologies
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Charles J. Queenan, Jr. ⁽¹⁾⁽³⁾
*Senior Counsel,
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Michael T. Smith ⁽²⁾⁽³⁾
*Retired Chairman and Chief
 Executive Officer,
 Hughes Electronics Corporation*

⁽¹⁾ Audit Committee

⁽²⁾ Nominating and Governance Committee

⁽³⁾ Personnel and Compensation Committee

STOCKHOLDER INFORMATION

Corporate Offices

Teledyne Technologies Incorporated
 12333 West Olympic Boulevard
 Los Angeles, CA 90064-1021
 Telephone: (310) 893-1600
 Fax: (310) 893-1669
www.teledyne.com

Transfer Agent and Registrar

Mellon Investor Services LLC
 P.O. Box 3315
 South Hackensack, NJ 07606
 (800) 356-2017

Stockholder Publications - Form 10-K

Annual reports (including Form 10-K) and proxy statements are mailed to all stockholders of record. For additional information, contact Corporate Communications or Investor Relations.

Stock Exchange Listing

The common stock of Teledyne Technologies Incorporated is traded on the New York Stock Exchange (symbol TDY).

Annual Meeting

The annual meeting of stockholders will be held on Wednesday, April 23, 2003, at 9:00 a.m., at Teledyne Technologies Incorporated, 12333 West Olympic Boulevard, Los Angeles, CA 90064-1021.

Independent Auditors

Ernst & Young LLP
 Los Angeles, California

Current News and General Information

Information about Teledyne is available at www.teledyne.com



Teledyne Technologies Incorporated

FORM

10-K

FORWARD-LOOKING STATEMENTS CAUTIONARY NOTICE

This annual report contains forward-looking statements, as defined in the Private Securities Litigation Reform Act of 1995, relating to earnings, cost-savings, growth opportunities, capital expenditures, pension matters and strategic plans. Actual results could differ materially from these forward-looking statements. Many factors, including changes in demand for products sold to the semiconductor, communications and commercial aviation markets, timely development of acceptable and competitive fuel cell products and systems, funding, continuation and award of government programs, receipt of (or failure to receive) government award fees based on collective performance achievements of multiple contractors, the terms of the Company's renewal of its current products liability insurance policy, continued liquidity of our customers (including commercial airline customers) and economic and political conditions, could change the anticipated results.

United States' and global responses to the Middle East conflict, terrorism and perceived nuclear threats increase uncertainties associated with forward-looking statements about our businesses. Various responses could realign government programs, and affect the composition, funding or timing of our programs. As happened after the September 11th terrorist attacks, reinstatement of flight restrictions would negatively impact the market for general aviation aircraft piston engine and components.

We are increasingly experiencing adverse effects of September 11th. The resulting downturn in the stock market, exacerbated by public company accounting issues, has negatively affected the value of the Company's pension assets. Absent improved market conditions, the Company will be required to make a contribution to its pension plan in 2004. In addition, these events have had significant impacts on the insurance markets greatly increasing insurance costs. Our existing aircraft product liability insurance policy expires in May 2003 and our directors and officers policy expires in November 2003.

The Company continues to take action to assure compliance with the internal controls, disclosure controls and other requirements of the Sarbanes-Oxley Act of 2002, which resulted from the corporate scandals. While the Company believes its control systems are effective, there are inherent limitations in all control systems, and misstatements due to error or fraud may occur and not be detected.

While Teledyne Technologies' growth strategy includes possible acquisitions, we cannot provide any assurance as to when, if or on what terms any acquisitions will be made. Acquisitions, including the recent acquisition of Monitor Labs Incorporated, involve various inherent risks, such as, among others, our ability to integrate acquired businesses and to achieve identified financial and operating synergies. Also, we may not be able to sell timely or on acceptable terms our remaining non-core or under-performing product lines, particularly given the current economic environment.

Additional information concerning factors that could cause actual results to differ materially from those projected in the forward-looking statements is contained in Teledyne Technologies' periodic filings with the Securities and Exchange Commission, including its 2002 Annual Report on Form 10-K. The Company assumes no duty to update forward-looking statements.

Credits:

Design: James Robie Design Associates

Writing: Robert McVicker

Pioneer 10 photo courtesy of NASA

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