Mistras Group, Inc.
Form 10-K
August 14, 2013
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

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

For the fiscal year ended May 31, 2013

Commission File Number 001-34481

Mistras Group, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**22-3341267**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

195 Clarksville Road

Princeton Junction, New Jersey 08550

(609) 716-4000

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

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

Title of each class	**Name of each exchange on which registered**
Common Stock, par value $.01 par value	New York Stock Exchange

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

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act of 1933. Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the Exchange Act). Yes o No x

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

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. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer x
Non-accelerated filer o	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the Registrant as of November 30, 2012, based upon the closing price of the common stock as reported by New York Stock Exchange on such date was approximately $364.0 million.

As of August 1, 2013, a total of 28,211,006 shares of the Registrant s common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Information required by Part III (Items 10, 11, 12, 13 and 14) is incorporated by reference to portions of the registrant s definitive Proxy Statement for its 2013 Annual Meeting of Shareholders (the Proxy Statement), which is expected to be filed not later than 120 days after the registrant s fiscal year ended May 31, 2013. Except as expressly incorporated by reference, the Proxy Statement shall not be deemed to be a part of this report on Form 10-K.

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MISTRAS GROUP, INC.

ANNUAL REPORT ON FORM 10-K

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ITEM 1. BUSINESS

FORWARD-LOOKING STATEMENTS

This Report on Form 10-K contains forward-looking statements regarding us and our business, financial condition, results of operations and prospects within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include those that express plans, anticipation, intent, contingency, goals, targets or future development and/or otherwise are not statements of historical fact. These forward-looking statements are based on our current expectations and projections about future events and they are subject to risks and uncertainties known and unknown that could cause actual results and developments to differ materially from those expressed or implied in such statements.

In some cases, you can identify forward-looking statements by terminology, such as goals, expects, anticipates, intends, plans, believes, estimates, may, could, should, would, predicts, appears, projects, or the negative of such terms or other similar expressions. Factors cause or contribute to differences in results and outcomes from those in our forward-looking statements include, without limitation, those discussed elsewhere in this Report in Part I, Item 1A. Risk Factors and in this Item 1, as well as those discussed in our other Securities and Exchange Commission (SEC) filings. We undertake no obligation to (and expressly disclaim any obligation to) revise or update any forward-looking statements made herein whether as a result of new information, future events or otherwise. However, you should consult any further disclosures we may make on these or related topics in our reports on Form 8-K or Form 10-Q filed with the SEC.

The following discussions should be read in conjunction with the sections of this Report entitled Management s Discussion and Analysis of Financial Condition and Results of Operations and Risk Factors .

Our Business

We offer our customers one source for asset protection solutions and are a leading global provider of technology-enabled asset protection solutions used to evaluate the structural integrity and reliability of critical energy, industrial and public infrastructure. We combine industry-leading products and technologies, expertise in mechanical integrity (MI), Non-Destructive Testing (NDT), Destructive Testing (DT) and predictive maintenance (PdM) services, proprietary data analysis and enterprise inspection database management warehousing software to deliver a comprehensive portfolio of customized solutions, ranging from routine inspections to complex, plant-wide asset integrity management and assessments. These mission critical solutions enhance our customers ability to comply with governmental safety and environmental regulations, extend the useful life of their assets, increase productivity, minimize repair costs, manage risk and avoid catastrophic disasters. Given the role our solutions play in ensuring the safe and efficient operation of infrastructure, we have historically provided a majority of our services to our customers on a regular, recurring basis. We serve a global customer base of companies with asset-intensive infrastructure, including companies in the oil and gas (downstream, midstream, upstream and petrochemical), power generation (natural gas, fossil, nuclear, alternative, renewable, and transmission and distribution), public infrastructure, chemicals, commercial aerospace and defense, transportation, primary metals and metalworking, pharmaceutical/biotechnology, food processing industries and research and engineering institutions. As of May 31, 2013, we had approximately 4,400 employees, including approximately 30 Ph.D. s and 100 other degreed engineers and certified Level III technicians, in approximately 100 offices across 16 countries. We have established long-term relationships as a critical solutions provider to many of the leading companies in our target markets. The following chart represents the percentage of consolidated revenues we generated from our various markets for fiscal 2013.

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Mistras Revenues by End Market

(Fiscal 2013)

Our asset protection solutions continuously evolve over time as we combine the disciplines of NDT, DT, PdM, MI services and data analysis and enterprise inspection warehousing software to provide value to our customers. The foundation of our business is NDT, which is the examination of assets without impacting current and future usefulness or impairing the integrity of these assets. The ability to inspect infrastructure assets and not interfere with their operating performance makes NDT a highly attractive alternative to many traditional intrusive inspection techniques, which may require dismantling equipment or shutting down a plant, mill or site. Our MI services are a systematic engineering-based approach to developing best practices for ensuring the on-going integrity and safety of equipment and industrial facilities. MI services involve conducting an inventory of infrastructure assets, developing and implementing inspection and maintenance procedures, training personnel in executing these procedures and managing inspections, testing and assessments of customer assets. By assisting customers in implementing MI programs we enable them to identify gaps between existing and desired practices, find and track deficiencies and degradations to be corrected and establish quality assurance standards for fabrication, engineering and installation of infrastructure assets. We believe our MI services improve plant safety and reliability and regulatory compliance, and in so doing reduce maintenance costs. Our solutions also incorporate comprehensive Risk Based Inspection (RBI) data analysis from our proprietary asset protection software to provide customers with detailed, integrated and cost-effective solutions that rate the risks of alternative maintenance approaches and recommend actions in accordance with consensus industry codes and standards and help to establish and support key performance indicators (KPI s) to ensure continued safe and economic operations.

We differentiate ourselves by delivering these solutions under our *One Source* umbrella, utilizing a proven systematic method that creates a closed loop life cycle for addressing continuous asset protection and improvement. Under this business model, customers outsource their

inspection to us on a run and maintain basis. As a global asset protection leader, we provide a comprehensive range of solutions that includes:

- traditional and advanced outsourced NDT services conducted by our technicians, mechanical integrity assessments, above-ground storage tank inspection, pipeline inspection and American Petroleum Institute (API) visual inspections and PdM program development;

- destructive testing (DT) is a definitive discipline in material testing, taking specimens through to mechanical failure while examining a host of factors. Hardness, stiffness and strength are a few key indicators drawn from destructive tests per customer specifications. DT is a strength of our recent acquisition, Mistras-GMA in Germany, which specializes in an array of destructive testing applications utilized throughout the materials selection and approval process in the aerospace, automotive, chemical, oil & gas and power generation industries. Example testing includes;

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- Mechanical tests Materials, specimens and even composites are subjected to increasing levels of tension, compression, shear and peeling until failure. There are a number of variations of mechanical testing in which adding temperature, strain, unidirectional load or shear can provide useful results

- Physical/Chemical Used to examine specific material and thermal characteristics as well as chemical compositions, including differential scanning calorimetry (DSC), high performance liquid chromatography, fiber volume content and fourier transformation infrared spectroscopy (FTIR)

- Materialography Gives an insight into the geometries of structural composites, which presents an inside track with regards to determining failure mechanisms and asset lifespan expectations.

- advanced asset protection solutions, in most cases involving proprietary acoustic emission (AE), digital radiography, infrared, wireless and/or automated ultrasonic inspections and sensors, which are operated by our highly trained technicians;

- a proprietary and customized portfolio of software products for testing and analyzing data captured in real-time by our technicians and sensors, including advanced features such as pattern recognition and neural networks;

- enterprise software and relational databases to store and analyze inspection data, comparing it to prior operations and testing of similar assets, industrial standards and specific risk conditions, such as use with highly flammable or corrosive materials, and developing asset integrity management plans based on risk-based inspection that specify an optimal schedule for the testing, maintenance and retirement of assets;

- on-line monitoring systems that provide secure web-based remote or on-site asset inspection, real-time reports and analysis of plant or enterprise-wide structural integrity data, comparison of integrity data to our library of historical inspection data and analysis to better assess structural integrity and provide alerts for and prioritize future inspections and maintenance; and

- in-house testing services: Mistras in-house inspection services provide cost-effective, efficient solutions that improve the integrity and lifespan of critical assets featuring a dynamic suite of testing and inspection services. With a network of 15 in-house laboratories, Mistras provides a one-stop shop for traditional (NDT), advanced non-destructive testing (ANDT), and destructive testing (DT) of materials and fabricated structures by offering a complete inspection package from preparation and production all the way to post-processing. These capabilities are available through our state-of-the-art testing equipment and expertise in our grid of in-house testing laboratories across the U.S.A., Canada and Europe.

Our labs hold a wide variety of certifications that allow them to perform inspections to meet or exceed stringent regulatory requirements, such as: NADCAP, AS9100/ISO-9001, FAA Repair Station and ITAR/EAR. With these certifications comes a comprehensive range of approvals from Prime Contractors, the military, and internationally renowned products and systems manufactures from aerospace to nuclear energy; transportation to petrochemical industries.

We offer our customers a customized package of services, products and systems, or our enterprise software and other niche high-value products on a stand-alone basis. For example, customers can purchase most of our sensors and accompanying software to integrate with their own systems, or they can purchase a complete turn-key solution, including installation, monitoring and assessment services. Importantly, however, we do not sell certain of our advanced and proprietary software and other products as stand-alone offerings; instead, we embed them in our comprehensive service offerings to protect our investment in intellectual property while providing an added value which generates a substantial source of recurring revenues.

We generated revenues of $529.3 million, $436.9 million and $338.6 million, net income of $11.6 million, $21.4 million and $16.4 million, and adjusted EBITDA of $68.3 million, $65.2 million and $52.3 million for fiscal 2013, 2012 and 2011, respectively. An explanation of adjusted EBITDA and a reconciliation of these amounts to net income are set forth in Item 6 - Selected Financial Data. For fiscal 2013, we generated approximately 72% of our revenues from our Services segment. Our revenues are diversified, with our top ten customers accounting for approximately 34%, 39% and 44% of our revenues during fiscal 2013, 2012 and 2011, respectively.

Asset Protection Industry Overview

Asset protection is a large and rapidly growing industry that consists of NDT inspection, DT inspection, PdM and MI services and inspection data warehousing and analysis. NDT plays a crucial role in assuring the operational and structural integrity and reliability of critical infrastructure without compromising the usefulness of the tested materials or equipment. The evolution of NDT services, in combination with broader industry trends, including increased asset utilization and aging of infrastructure, the desire by companies to extend the useful life of their existing infrastructure, new construction projects, enhanced government regulation and the shortage of certified NDT professionals, have made NDT an integral and increasingly outsourced part of many asset-intensive industries. Well-publicized industrial and public infrastructure failures and accidents such as the Deepwater Horizon oil spill in the Gulf of Mexico and

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the I-35W Mississippi River bridge collapse in Minnesota continues to raise the level of safety and environmental awareness of regulators, and owners and operators are recognizing the benefits that asset protection solutions can provide.

Historically, NDT solutions predominantly used qualitative testing methods aimed primarily at detecting defects in the tested materials. This methodology, which we categorize as traditional NDT, is typically labor intensive and, as a result, considerably dependent upon the availability and skill level of the certified technicians, engineers and scientists performing the inspection services. The traditional NDT market has been highly fragmented, with a significant number of small vendors providing inspection services to divisions of companies or local governments situated in close proximity to the vendor s field inspection engineers and technicians. The current trend, however, is for customers to look for a select few vendors capable of providing a wider spectrum of asset protection solutions for global infrastructure that we call one source . This shift in underlying demand, which began in the early 1990s, has contributed to a transition from traditional NDT solutions to more advanced solutions that employ automated digital sensor technologies and accompanying enterprise software, allowing for the effective capture, storage, analysis and reporting of inspection and engineering results electronically and in digital formats. These advanced techniques, taken together with advances in wired and wireless communication and information technologies, have further enabled the development of remote monitoring systems, asset-management and predictive maintenance capabilities and other data analytics and management. We believe that as advanced asset protection solutions continue to gain acceptance among asset-intensive organizations, those vendors offering broad, complete and integrated solutions, scalable operations and a global footprint will have a distinct competitive advantage. Moreover, we believe that vendors that are able to effectively deliver both advanced solutions and data analytics, by virtue of their access to customers data, create a significant barrier to entry for competitors, and lead the opportunity to create significant recurring revenues.

We believe the following represent key dynamics driving the growth of the asset protection industry:

- *Extending the Useful Life of Aging Infrastructure.* The prohibitive cost and challenge of building new infrastructure has resulted in the significant aging of existing infrastructure and caused companies to seek ways to extend the useful life of existing assets. For example, due to the significant cost associated with constructing new refineries, stringent environmental regulations which have increased the costs of managing them and difficulty in finding suitable locations on which to build them, no new refineries have been constructed in the United States since 1976. Another example is in the area of power transmission and distribution. The Smart Grid initiative in the United States is causing increased loading on aging transformers that are more than 40 years old in many cases. The need to test and monitor these units to ensure their reliability until replacement is instrumental in support of a reliable Smart Grid network. Because aging infrastructure requires relatively higher levels of maintenance and repair in comparison to new infrastructure, as well as more frequent, extensive and ongoing testing, companies and public authorities are increasing spending to ensure the operational and structural integrity of existing infrastructure.

- *Outsourcing of Non-Core Activities and Technical Resource Constraints.* The increasing sophistication and automation of NDT programs, together with a decreasing supply of skilled professionals and stricter governmental regulations, has caused many companies and public authorities to outsource NDT and other services rather than recruit and train such capabilities internally. Owners and operators of infrastructure are increasingly contracting with third party providers that have the necessary technical product portfolio, engineering expertise, technical workforce and proven track record of results-oriented performance to effectively meet their increasing requirements.

- *Increasing Asset and Capacity Utilization.* Due to high energy prices, the availability of new and inexpensive sources of raw materials, high repair and replacement costs and the limited construction of new infrastructure, existing infrastructure in some of our target markets is being used at higher capacities, causing increased stress and fatigue that accelerate deterioration. These higher prices and costs also motivate our customers to complete repairs, maintenance, replacements and upgrades more quickly. For example, increasing demand for refined petroleum products, combined with high plant utilization rates, is driving refineries to upgrade facilities to make them more efficient and expand capacity. In order to sustain high capacity utilization rates, customers are increasingly using asset protection solutions to efficiently ensure the integrity and safety of their assets. Implementation of asset protection solutions can also lead to increased productivity as a result of reduced

maintenance-related downtime.

- *Increasing Corrosion from Low-Quality Inputs.* High commodities prices and increasing energy demands have led to the use of lower grade raw materials and feedstock s used in refinery and power generation processes. These lower grade raw materials and feedstock s, especially in the case of the refining process dealing with higher sulfur content petroleum, can rapidly corrode the infrastructure they come into contact with, which in turn increases the need for asset protection solutions to identify such corrosion and enable infrastructure owners to proactively combat the problems caused by such corrosion.

- *Increasing Use of Advanced Materials.* Customers in our target markets are increasingly utilizing advanced materials, such as composites, and other unique technologies in the manufacturing and construction of new infrastructure and aerospace

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applications. As a result, they require advanced testing, assessment and maintenance technologies to inspect and to protect these assets, since many of these advanced materials cannot be tested using traditional NDT techniques. We believe that demand for NDT solutions will increase as companies and public authorities continue to use these advanced materials, not only during the operating phase of the lifecycle of their assets, but also during the design, manufacturing and quality control phases and are more frequently integrating and embedding sensors directly into the end product in support of total life cycle asset management.

- *Meeting Safety Regulations.* Owners and operators of infrastructure assets increasingly face strict government regulations and safety requirements. Failure to meet these standards can result in significant financial liabilities, increased scrutiny by Occupational Safety and Health Administration (OSHA) and other regulators, higher insurance premiums and tarnished corporate brand value. There have been several industrial accidents, including explosions and fires, in recent years. These accidents created significant damage to the reputation of refineries and coupled with concern by owners, led OSHA to strengthen process safety enforcement standards with the implementation of the National Emphasis Program (NEP) that also extends to chemical plants for compliance with applicable regulations. As a result, these owners and operators are seeking highly reliable asset protection suppliers with a proven track record of providing asset protection services, products and systems to assist them in meeting these increasingly stringent regulations.

- *Expanding Addressable End-Markets.* Advances in NDT sensor technology and asset protection software based systems, and the continued emergence of new technologies, are creating increased demand for asset protection solutions in applications where existing techniques were previously ineffective. Further, we expect increased demand in relatively new markets, such as the pharmaceutical and food processing industries, where infrastructure is now beginning to age to a point where significant maintenance may be required.

- *Expanding Addressable Geographies.* We believe that a substantial driver of incremental demand will come from international markets, including Canada, Asia, Europe and Latin America. Specifically, as companies and governments in these markets build and maintain infrastructure and applications that require the use of asset protection solutions, we believe demand for our solutions will increase.

We believe that the market available to us will continue to grow as a result of macro-market trends, including aging infrastructure, use of more advanced materials, such as composites, and the increasing outsourcing of asset protection solutions by companies who historically performed these services using internal resources.

Our Target Markets

We focus our sales, marketing and product development efforts on a range of infrastructure-intensive industries and governmental authorities. With our portfolio of asset protection services, products and systems, we can effectively serve our customer base throughout the lifecycle of their assets, beginning at the design stage, through the construction and maintenance phase and, as necessary, through the decommissioning of their infrastructure. In general, our largest market in broad terms is energy-related infrastructure.

The increase in world energy demand and prices from 2003 to 2012, combined with concerns about the environmental consequences of greenhouse gas emissions, has led to renewed interest in alternatives to traditional fossil fuels particularly with the discovery of large shale gas reserves, which are considered by some as a clean energy alternative, has driven the increase in the use of natural gas to fuel gas turbines in combined cycle power generation plants.

Long-term prospects continue to improve for generation from both nuclear and renewable energy sources supported by government incentives, demand and by higher fossil fuel prices.

Electricity from coal-fired generation, mainly in global emerging markets, is also expected to increase, making coal still the second fastest-growing source for electricity generation. The outlook for coal could be altered substantially by additional constraints and any future legislation that would reduce or limit the release of greenhouse gas emissions related to fossil fuels. There is a progressive shift from traditional gas energy to unconventional gas energy sources.

Oil and Gas

Liquids including oil and gas remain the world s largest energy source given their importance in the transportation and industrial end-use sectors. World crude oil and liquid fuels consumption will increase by estimated 1.0 million barrels per day in 2013 to 90 million barrels per day and 91.3 million barrels per day in 2014. The United States Energy Information Administration (EIA) expects that world liquid fuels consumption from countries outside the Organization of Petroleum Exporting Countries will increase by 1.1 million

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barrels per day in 2013 and by 1.6 million barrels per day in 2014. With continued production growth from US tight-oil formations and Canadian oil sands, North America drives almost all the projected growth in non-OPEC supply over the next 2 years.

The EIA reports in its *International Energy Outlook 2013* that global energy demand will grow by 56 percent between 2010 and 2040. While nuclear and renewable energy are projected to be the fastest growing sources of supply, fossil fuels (coal, oil, and gas) are still expected to supply almost 80 percent of that demand in 2040. The International Energy Agency (IEA) is forecasting in its World Energy Outlook 2012 that the shale oil and gas boom in this country will make the United States the top oil and natural gas producer in the world. According to the IEA, the United States will become the world s largest producer of oil by 2017 overtaking both Saudi Arabia and Russia. By 2030, North America will become a net exporter of oil and, by 2035, the United States becomes almost self-sufficient in energy. Globally, the IEA indicates that fossil fuels will dominate the world s energy picture as it has in the past.

Because oil, gas, and coal will continue to be the primary energy sources during this time, the energy industry will have to continue increasing the supply of these fuels to meet this increasing demand. In addition, there were approximately 700 crude oil refineries in the world, with 141 refineries operating in the United States. High energy prices are driving consistently high utilization rates at these facilities. With aging infrastructure and growing capacity constraints, asset protection continues to grow as an indispensable tool in maintenance planning, quality control and prevention of catastrophic failure in refineries and petrochemical plants. Recent high oil and fossil fuel input prices have placed additional pressure on industry participants to increase capacity, focus on production efficiency and cost reductions and shorten shut-down time or turnarounds. Asset protection solutions are used for both off-stream inspections or inspection when the tested infrastructure is shut-down, and increasingly, on-stream inspections, or inspection when the tested infrastructure is operating at normal levels. While we expect off-stream inspection of vessels and piping during a plant shut-down or turnaround to remain a routine practice by companies in these industries, we expect the areas of greatest future growth to occur as a result of on-stream inspections and monitoring of facilities, such as offshore platforms, transport systems and oil and gas pipeline transmission lines, because of the substantial opportunity costs of shutting them down. On-stream inspection enables companies to avoid the costs associated with shutdowns during testing while enabling the economic and safety advantages of advanced planning or predictive maintenance.

Power Generation and Transmission

Asset protection in the power industry has traditionally been associated with the inspection of high-energy, critical steam piping, boilers, rotating equipment, and various other plant components, utility aerial man-lift devices, large transformer testing and various other applications for nuclear and fossil-fuel based power plants. We believe that in recent years the use of asset protection solutions have grown rapidly in this industry due to the aging of critical power generation and transmission infrastructure. For instance, the average age of a nuclear power plant in the United States is over 30 years. Furthermore, global demand for power generation and transmission has grown rapidly and is expected to continue, primarily as a result of the energy needs of emerging economies such as China and India. The areas of traditional power generation and transmission that we focus our efforts on are natural gas, fossil, nuclear, alternative, renewable, and wind.

Process Industries

The process industries, or industries in which raw materials are treated or prepared in a series of stages, include chemicals, pharmaceuticals, food processing, paper and pulp and metals and mining, have a need for our products and services. As with oil and gas processing facilities, chemical processing facilities require significant spending on maintenance and monitoring. Given their aging infrastructure, growing capacity constraints and increasing capital costs, we believe asset protection solutions will continue to grow in importance in maintenance planning, quality and cost control and prevention of catastrophic failure in the chemicals industry. Although the pharmaceuticals and food processing

industries have historically not employed asset protection solutions as much as other industries, we are now seeing these industries increase the use of asset protection solutions throughout their manufacturing and other processes.

Public Infrastructure, Research and Engineering

We believe that high profile infrastructure catastrophes, such as the collapse of the I-35W Mississippi River Bridge in Minneapolis and others since, have caused public authorities to more actively seek ways to prevent similar events from occurring. Public authorities tasked with the construction of new, and maintenance of existing, public infrastructure, including bridges and highways, increasingly use asset protection solutions to test and inspect these assets. Importantly, these authorities now employ asset protection solutions throughout the life of these assets, from their original design and construction, with the use of embedded sensing devices to enable on-line monitoring, through ongoing maintenance requirements. With more than 151,000 bridges in the United States almost 25 percent classified as structurally deficient or functionally obsolete by the Federal Highway Agency (FHWA), the need for structural health monitoring has never been greater. An immediate cost-beneficial investment aimed at replacing or repairing deficient bridges may cost as much as $70 billion, according to the U.S. Department of Transportation.

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This is a target market for our application technology and experience. Over the last ten years, we have provided testing and health monitoring on hundreds of bridges and structures worldwide, among which include some of the largest and well-known bridges in the United Kingdom, California, Pennsylvania and the greater New York metropolitan area. Commencing in fiscal 2011, we have been providing a continuous on-line Structural Health Monitoring System to the California Department of Transportation that is monitoring the San Francisco Oakland Bay Bridge. As a result of our continued efforts to offer cost-effective application technology to address the need for increased safety measures, we continue to develop products as a result of a $6.9 million project awarded in 2009 under the National Institute of Standards and Technology (NIST) Innovation Program that is intended to bring a transformational impact in the area of civil infrastructure structural health monitoring using affordable self-powered wireless sensors.

The use of asset protection solutions within the transportation industry is primarily focused in the automotive and rail segments. Within the automotive segment, manufacturers use asset protection solutions throughout the entire design and development process, including the inspection of raw material inputs, during in-process manufacturing and, finally, during end-product testing and analysis. Although asset protection technologies have been utilized in the automobile industry for a number of decades, we believe growth in this market will increase as automobile manufacturers begin to outsource their asset protection requirements and take advantage of new technologies that enable them to more thoroughly inspect their products throughout the manufacturing process, reduce costs and shorten time to market. Within the rail subdivision, asset protection solutions are used primarily to test rails and passenger and tank cars.

Aerospace and Defense

The operational safety, reliability, structural integrity and maintenance of aircraft and associated products is critical to the aerospace and defense industries. Industry participants increasingly use asset protection solutions to perform inspections upon delivery, and also periodically employ asset protection solutions during the operational service of aircraft, using advanced ultrasonic immersion systems or digital radiography in order to precisely detect structural defects. Industry participants also use asset protection solutions for the inspection of advanced composites found in new classes of aircraft, x-ray of critical engine components, ultrasonic fatigue testing of complete aircraft structures, corrosion detection and on-board monitoring of landing gear and other critical components. We expect increased demand for our solutions including our destructive testing business from the aerospace industry to result from wider use of these advanced composites and distributed on-line sensor networks and other embedded analytical applications built into the structure of assets to enable real-time performance monitoring and condition-based maintenance. We serve this rapidly growing target market by providing our state of the art fully integrated inspection systems to original equipment manufacturers (OEMs). For the OEM that prefers to outsource this inspection we provide a full range of in-house services through our four regional facilities that combined have eighteen immersion inspection tank systems and two gantry systems. These facilities have obtained numerous accreditations and certifications required to meet the stringent inspection criteria that this industry demands.

Industrial

The quality control requirements driven by the low defect tolerance within automated, robotic intensive metalwork industries, such as screw machining, serve as key drivers for the recent growth of NDT technologies, such as ultrasonics and radiography. We expect that increasingly stringent quality control requirements and competitive forces will drive the demand for more costly finishing and polishing which, in turn, will promote greater use of NDT throughout the production lifecycle.

Our Competitive Strengths

We believe the following competitive strengths contribute to our being a leading provider of asset protection solutions and will allow us to further capitalize on growth opportunities in our industry:

- *One Source Provider for Asset Protection Solutions® Worldwide.* We believe we have the most comprehensive portfolio of proprietary and integrated asset protection solutions, including services, products and systems worldwide, which positions us to be the leading single source provider for a customer s asset protection requirements. Through our network of approximately 100 offices and independent representatives in 16 countries around the world, we offer an extensive portfolio of solutions that enables our customers to consolidate all their inspection and maintenance requirements and the associated data storage and analytics on a single system that spans the customers entire enterprise.

- *Long-Standing Trusted Provider to a Diversified and Growing Customer Base.* By providing critical and reliable NDT services, products and systems for more than 30 years and expanding our asset protection solutions, we have become a trusted partner to a large and growing customer base across numerous infrastructure-intensive industries globally. Our customers include some of the largest and most well-recognized firms in the oil and gas, chemicals, fossil and nuclear power, and aerospace and defense industries as well as some of the largest public authorities.

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- *Repository of Customer-Specific Inspection Data.* Our enterprise software solutions, PCMS, enable us to capture and warehouse our customers testing and inspection data in a centralized database. As a result, we have accumulated large amounts of proprietary process data and information that allows us to provide our customers with value-added services, such as benchmarking, reliability centered maintenance solutions including predictive maintenance, inspection scheduling, data analytics and regulatory compliance.

- *Proprietary Products, Software and Technology Packages.* We have developed systems that have become the cornerstone of several high value-added unique NDT applications, such as those used for the testing of above-ground storage tanks (the TANKPAC technology package). These proprietary products allow us to efficiently and effectively provide highly valued solutions to our customers complex applications, resulting in a significant competitive advantage. In addition to the proprietary products and systems that we sell to customers on a stand-alone basis, we also develop a range of proprietary sensors, instruments, systems and software used exclusively by our Services segment.

- *Deep Domain Knowledge and Extensive Industry Experience.* We are an industry leader in developing advanced asset protection solutions, including acoustic emission testing for non-intrusive on-line monitoring of storage tanks and pressure vessels, bridges and transformers, portable corrosion mapping, ultrasonic testing (UT) systems, on-line plant asset integrity management with sensor fusion, enterprise software solutions for plant-wide and fleet-wide inspection data archiving and management, advanced and thick composites inspection and ultrasonic phased array inspection of thick wall boilers.

- *Collaborating with Our Customers.* Our asset protection solutions have historically been designed in response to our customers unique performance specifications and are supported by our proprietary technologies. Important technology packages, such as TANKPAC, and products, such as VPAC, were developed in close cooperation and partnership with key Mistras customers. Our sales and engineering teams work closely with our customers research and design staff during the design phase in order to incorporate our products into specified infrastructure projects, as well as with facilities maintenance personnel to ensure that we are able to provide the asset protection solutions necessary to meet these customers changing demands.

- *Experienced Management Team.* Our management team has a track record of leadership in NDT, averaging over 20 years experience in the industry. These individuals also have extensive experience in growing businesses organically and in acquiring and integrating companies, which we believe is important to facilitate future growth in the fragmented asset protection industry. In addition, our senior managers are supported by highly experienced project managers who are responsible for delivering our solutions to customers.

Our Growth Strategy

Our growth strategy emphasizes the following key elements:

- *Continue to Develop Technology-Enabled Asset Protection Services, Products, Software and Systems.* We intend to maintain and enhance our technological leadership by continuing to invest in the internal development of new services, products, software and systems. Our highly trained team of Ph.D. s, engineers, application software developers and certified technicians has been instrumental in developing numerous significant asset protection standards. We believe their knowledge base will continue to enable us to innovate a wide range of new asset protection solutions.

- *Increase Revenues from Our Existing Customers.* Many of our customers are multinational corporations with asset protection requirements from multiple divisions at multiple locations across the globe. Currently, we believe we capture a relatively small portion of their overall expenditures on these solutions. We believe our superior services, products and systems, combined with the trend of outsourcing asset protection solutions to a small number of trusted service providers, position us to significantly expand both the number of divisions and locations that we serve as well as the types of solutions we provide. We strive to be the preferred global partner for our customers and aim to become the single source provider for their asset protection solution requirements.

- *Add New Customers in Existing Target Markets.* Our current customer base represents a small fraction of the total number of companies in most of our target markets with asset protection requirements. Our scale, scope of products and services and expertise in creating technology-enabled solutions have allowed us to build a reputation for high-quality and have increased customer awareness about us and our asset protection solutions. We intend to leverage our reputation and solutions offerings to win new customers within our existing target markets, especially as asset protection solutions are adopted internationally. We intend to continue to leverage our competitive strengths to win new business as customers in our existing target markets continue to seek a single source and trusted provider of advanced asset protection solutions.

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- *Expand Our Customer Base into New End Markets.* We believe we have significant opportunities to rapidly expand our customer base in relatively new end markets, including the maritime shipping, nuclear, wind turbine and other alternative energy and natural gas transportation industries and the market for public infrastructure, such as highways and bridges. The expansion of our addressable markets is being driven by the increased recognition and adoption of asset protection services, products and systems, and new NDT technologies enabling further applications in industries such as healthcare and compressed and liquefied natural gas transportation, and the aging of infrastructure, such as construction and loading cranes and ports, to the point where visual inspection has proven inadequate and new asset protection solutions are required. We expect to continue to expand our global sales organization, grow our inspection data management and data mining services and find new high-value applications, such as embedding our sensor technology in assembly lines for electronics and distributed sensor networks for aerospace applications. As companies in these emerging end markets realize the benefits of our asset protection solutions, we expect to expand our leadership position by addressing customer needs and winning new business.

- *Continue to Capitalize on Acquisitions.* We intend to continue employing a disciplined acquisition strategy to broaden, complement and enhance our product and service offerings, add new customers and certified personnel, expand our sales channels, supplement our internal development efforts and accelerate our expected growth. We believe the market for asset protection solutions is highly fragmented with a large number of potential acquisition opportunities. We have a proven ability to integrate complementary businesses, as demonstrated by the success of our past acquisitions, which have often contributed entirely new products and services that have added significantly to our revenues and profitability. In addition, we have begun to offer and sell our advanced asset protection solutions to customers of companies we acquired that had previously relied on traditional NDT solutions. Importantly, we believe we have improved the operational performance and profitability of our acquired businesses by successfully integrating and selling a comprehensive suite of solutions to the customers of these acquired businesses.

Our Segments

The Company has three operating segments:

- *Services*. This segment provides asset protection solutions primarily in North America with the largest concentration in the United States and a rapidly expanding Canadian services business, consisting primarily of non-destructive testing and inspection services that are used to evaluate the structural integrity and reliability of critical energy, industrial and public infrastructure.

- *Products and Systems*. This segment designs, manufactures, sells, installs and services our asset protection products and systems, including equipment and instrumentation, predominantly in the United States.

- *International*. This segment offers services, products and systems similar to those of our Services and Products and Systems segments to global markets, principally in Europe, the Middle East, Africa, Asia and South America, but not to customers in China and South Korea, which are served by our Products and Systems segment. South America consists primarily of our Brazil operations.

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