ION GEOPHYSICAL CORP
Form 10-K
February 24, 2011

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UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549
Form 10-K

(Mark One)

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Fiscal Year Ended December 31, 2010

or

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

Commission file number 1-12691
ION Geophysical Corporation
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**22-2286646**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*

2105 CityWest Blvd
Suite 400
Houston, Texas 77042-2839
(Address of Principal Executive Offices, Including Zip Code)

(281) 933-3339
(Registrant s Telephone Number, Including Area Code)

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock, $0.01 par value	New York Stock Exchange
Rights to Purchase Series A Junior Participating Preferred Stock	New York Stock Exchange

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

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

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

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

* The registrant has not yet been phased into the interactive data requirements.

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 þ Non-accelerated filer o Smaller reporting company o

(Do not check if a smaller reporting company)

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

As of June 30, 2010 (the last business day of the registrant s second quarter of fiscal 2010), the aggregate market value of the registrant s common stock held by non-affiliates of the registrant was $495.25 million based on the closing sale price on such date as reported on the New York Stock Exchange.

Indicate the number of shares outstanding of each of the registrant s classes of common stock, as of the latest practicable date: common stock, $0.01 par value, 153,028,861 shares outstanding as of February 18, 2011.

DOCUMENTS INCORPORATED BY REFERENCE

Document	**Parts Into Which Incorporated**
Portions of the Proxy Statement for the Annual Meeting of Stockholders to be held May 27, 2011	Part III

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PART I

Preliminary Note: **This Annual Report on Form 10-K contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements should be read in conjunction with the cautionary statements and other important factors included in this Form 10-K. See Item 1A. *Risk Factors* for a description of important factors which could cause actual results to differ materially from those contained in the forward-looking statements.**

In this Form 10-K, ION Geophysical, ION, company, we, our, ours and us refer to ION Geophysical Corp its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated. Certain trademarks, service marks and registered marks of ION referred to in this Form 10-K are defined in Item 1. *Business Intellectual Property*.

Item 1. *Business*

We are a technology-focused seismic solutions company that provides advanced acquisition equipment, software and planning and seismic processing services to the global energy industry. Our products, technologies, and services are used by oil and gas exploration and production (E&P) companies and seismic acquisition contractors to generate high-resolution images of the subsurface during exploration, exploitation, and production operations. Our products and services are intended to measure and interpret seismic data about rock and fluid properties within the Earth s subsurface to enable oil and gas companies to make improved drilling and production decisions. The seismic surveys for our data library business are substantially pre-funded by our customers and we contract with third party seismic data acquisition companies to acquire the data, all of which minimizes our risk exposure. We serve customers in all major energy producing regions of the world from strategically located offices in 19 cities on five continents.

On March 25, 2010, we completed the disposition of most of our land seismic equipment businesses in connection with the formation of a land equipment joint venture with BGP, Inc., China National Petroleum Corporation (BGP), a subsidiary of China National Petroleum Corporation (CNPC). The resulting joint venture company, organized under the laws of the People s Republic of China, is named INOVA Geophysical Equipment Limited (INOVA Geophysical). BGP owns a 51% interest in INOVA Geophysical, and ION owns a 49% interest. We believe that this joint venture will provide us the opportunity to further extend the geographic scope of our business through the sales and service facilities of BGP, especially in Africa, the Middle East, China, and Southeast Asia.

Our products and services include the following:

Land seismic data acquisition equipment (principally through our 49% ownership in INOVA Geophysical),

Marine seismic data acquisition equipment,

Navigation, command & control, and data management software products,

Planning services for survey design and optimization,

Seismic data processing and reservoir imaging services, and

Seismic data libraries.

Seismic imaging plays a fundamental role in hydrocarbon exploration and reservoir development by delineating structures, rock types, and fluid locations in the subsurface. Geoscientists interpret seismic data to identify new sources of hydrocarbons and pinpoint drilling locations for wells, which can be costly and involve high risk. As oil and gas reservoirs have become harder to find and more expensive to develop and exploit in recent years, the demand for advanced seismic imaging solutions has grown. In addition, seismic technologies are now being applied more broadly over the entire life cycle of a hydrocarbon reservoir to optimize production. For example, time-lapse seismic images (referred to as 4D or four-dimensional surveys), in which the fourth dimension is time, can be made of producing reservoirs to track the movement of injected or produced fluids and/or to identify locations containing by-passed hydrocarbons.

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ION has been involved in the seismic technology industry for approximately 40 years, starting in the 1960s when we designed and manufactured seismic equipment under our previous company name, Input/Output, Inc. In recent years, we have transformed our business from being solely a manufacturer and seller of seismic equipment to being a provider of a full range of seismic imaging products, technologies, and services.

We operate our company through four business segments: Systems, Software, Solutions and INOVA Geophysical.

Systems towed streamer and redeployable ocean bottom cable seismic data acquisition systems and shipboard recorders, streamer positioning and control systems and energy sources (such as air guns and air gun controllers) and analog geophone sensors.

Software software systems and related services for navigation and data management involving towed marine streamer and seabed operations.

Solutions advanced seismic data processing services for marine and land environments, reservoir solutions, onboard processing and quality control, seismic data libraries, and Integrated Seismic Solutions (ISS) services.

INOVA Geophysical through our interest in INOVA Geophysical, cable-based, cableless and radio-controlled seismic data acquisition systems, digital sensors, vibroseis vehicles (i.e. vibrator trucks) and source controllers for detonator and energy sources business lines.

Our executive headquarters are located at 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839. Our international sales headquarters are located at Oilfields Supply Center Ltd. B-23, Jebel Ali Free Zone, P.O. Box 18627, Dubai, United Arab Emirates. Our telephone number is (281) 933-3339. Our home page on the internet is *www.iongeo.com*. We make our website content available for information purposes only. Our website should not be relied upon for investment purposes, and it is not incorporated by reference into this Form 10-K.

In portions of this Form 10-K, we incorporate by reference information from parts of other documents filed with the Securities and Exchange Commission (SEC). The SEC allows us to disclose important information by referring to it in this manner, and you should review this information. We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, annual reports to stockholders, and proxy statements for our stockholders meetings, as well as any amendments to those reports, available free of charge through our website as soon as reasonably practicable after we electronically file those materials with, or furnish them to, the SEC.

You can learn more about us by reviewing our SEC filings on our website. Our SEC reports can be accessed through the Investor Relations section on our website. The SEC also maintains a website at *www.sec.gov* that contains reports, proxy statements, and other information regarding SEC registrants, including our company.

Seismic Industry Overview

Since the 1930s, oil and gas companies have sought to reduce exploration risk by using seismic data to create an image of the Earth s subsurface. Seismic data is recorded when listening devices placed on the Earth s surface or seabed floor, or carried within the streamer cable of a towed streamer vessel, measure how long it takes for sound vibrations to echo off rock layers underground. For seismic acquisition onshore, the acoustic energy producing the sound vibrations is generated by the detonation of small explosive charges or by large vibroseis (vibrator) vehicles. In marine acquisition, the energy is provided by a series of air guns that deliver highly compressed air into the water column.

The acoustic energy propagates through the subsurface as a spherical wave front, or seismic wave. Interfaces between different types of rocks will both reflect and transmit this wave front. Onshore, the reflected signals return to the surface where they are measured by sensitive receivers that may be either analog coil-spring geophones or digital accelerometers based on MEMS (micro-electro-mechanical systems) technology; offshore, the reflected signals are recorded by either hydrophones towed in an array behind a streamer

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acquisition vessel or by multicomponent geophones or MEMS sensors that are placed directly on the seabed. Once the recorded seismic energy is processed using advanced algorithms and workflows, images of the subsurface can be created to depict the structure, lithology (rock type), fracture patterns, and fluid content of subsurface horizons, highlighting the most promising places to drill for oil and natural gas. This processing also aids in engineering decisions, such as drilling and completion methods, as well as decisions affecting overall reservoir production.

Typically, an E&P company engages the services of a geophysical acquisition company to prepare site locations, coordinate logistics, and acquire seismic data in a selected area. The E&P company generally relies upon third parties, such as ION, to provide the contractor with equipment, navigation and data management software, and field support services necessary for data acquisition. After the data is collected, the same geophysical contractor, a third-party data processing company, the Company s data processing service or the E&P company itself will process the data using proprietary algorithms and workflows to create a series of seismic images. Geoscientists then interpret the data by reviewing the images and integrating the geophysical data with other geological and production information such as well logs or core information.

During the 1960s, digital seismic data acquisition systems (which converted the analog output from the geophones into digital data for recording) and computers for seismic data processing were introduced. Using the new systems and computers, the signals could be recorded on magnetic tape and sent to data processors where they could be adjusted and corrected for known distortions. The final processed data was displayed in a form known as stacked data. Computer filing, storage, database management, and algorithms used to process the raw data quickly grew more sophisticated, dramatically increasing the amount of subsurface seismic information.

Until the early 1980s, the primary commercial seismic imaging technology was two-dimensional, or 2-D, technology. 2-D seismic data is recorded using straight lines of receivers crossing the surface of the Earth. Once processed, 2-D seismic data allows geoscientists to see only a thin vertical slice of the Earth. A geoscientist using 2-D seismic technology must speculate on the characteristics of the Earth between the slices and attempt to visualize the true three-dimensional (3-D) structure of the subsurface.

The commercial development of 3-D imaging technology in the early 1980s was an important technological milestone for the seismic industry. Previously, the high cost of 3-D seismic data acquisition techniques and the lack of computing power necessary to process, display, and interpret 3-D data on a commercial basis had slowed its widespread adoption. Today s 3-D seismic techniques record the reflected energy across a series of closely-spaced seismic lines that collectively provide a more holistic, spatially-sampled depiction of geological horizons and, in some cases, rock and fluid properties, within the Earth.

3-D seismic data and the associated computer-based interpretation platforms are designed to allow geoscientists to generate more accurate subsurface maps than could be constructed on the basis of the more widely spaced 2-D seismic lines. In particular, 3-D seismic data provided more detailed information about and higher-quality images of subsurface structures, including the geometry of bedding layers, salt structures, and fault planes. The improved 3-D seismic images allowed the oil and gas industry to discover new reservoirs, reduce finding and development costs, and lower overall hydrocarbon exploration risk. Driven by faster computers and more sophisticated mathematical equations to process the data, the technology advanced quickly.

As commodity prices decreased in the late 1990 s and the pace of innovation in 3-D seismic imaging technology slowed, E&P companies slowed the commissioning of new seismic surveys. Also, business practices employed by geophysical contractors impacted demand for seismic data. In an effort to sustain higher utilization of existing capital assets, geophysical contractors increasingly began to collect speculative seismic data for their own account in the hopes of selling it later to E&P companies. Contractors typically selected an area, acquired data using generic acquisition parameters and generic processing algorithms, capitalized the acquisition costs, and attempted to sell the

survey results to multiple E&P companies. These generic, speculative, multi-client surveys were not tailored to meet the unique imaging objectives of individual clients and caused an oversupply of seismic data in many regions. Additionally, since contractors incurred most of the

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costs of this speculative seismic data at the time of acquisition, contractors lowered prices to recover as much of their fixed investment as possible, which drove operating margins down.

From 2004 to 2008, commodity prices increased and E&P companies again increased their capital investment programs, which drove higher demand for our products and services. The financial crisis that occurred in 2008 and the resulting economic downturn drove hydrocarbon prices down sharply, with crude oil prices falling to approximately $35 per barrel during early 2009. These conditions sharply reduced exploration activities in North America and in many parts of the world. Since then, crude oil prices have recovered to within a range of approximately $85 to $100 per barrel in early 2011, but North America natural gas prices have remained depressed due in part to the excess supply of natural gas in the market.

Our seismic contractor customers and the E&P companies that are users of our products, services and technology generally reduced their capital spending levels from late 2008 through early 2010. However, in the second half of 2010, we started to see increased levels of capital spending related to E&P activity. The number of rigs drilling for oil in North America is approaching record levels with U.S. rig counts increasing by approximately 600 year over year. Over the past decade, a majority of all new oil and gas reserves discovered worldwide were located offshore and we believe that offshore E&P activity will continue to grow in an effort to meet global energy demands. Meanwhile, interest in oil shale opportunities is increasing and developments in the technology to locate and extract oil shale reserves are progressing. Almost 60% of new U.S. onshore natural gas production is now coming from the shale gas plays, which exhibit first year decline rates of 65% to 85%. We expect that exploration and production expenditures will continue to recover as E&P companies and seismic contractors continue to see recovery in activity levels related to their business.

ION Geophysical s Business Strategy

Factors Affecting Long-Term Demand

The global recession that began in 2008 reduced the demand for (and associated prices of) hydrocarbons, which adversely affected our business and results of operations. However, we are now seeing increased levels of capital spending related to E&P activity, particularly in the second half of 2010, and we believe that current conditions exist that favor increased seismic spending for the years ahead. These conditions include the following:

- Demand for both crude oil and natural gas should continue to increase as the financial health of developed countries continues to improve, and higher demand continues in high-growth emerging markets such as China and India;

- The clear potential for large undiscovered or underdeveloped reservoirs in offshore locations should continue to drive demand by E&P companies and seismic contractors for improvements in marine equipment technology and offshore seismic data libraries; and

- E&P companies are focusing more on hydrocarbon reservoirs that are located in deeper waters or deeper in the geologic column, which should increase demand for newer and more efficient imaging processing and equipment technology solutions.

The complex hydrocarbon reservoirs that have been developed in recent years generally have more subtle characteristics than the reservoirs that were discovered in prior decades and these unconventional reservoir types include tar sand deposits or shale gas or oil formations. As a result, the process of finding and developing these hydrocarbon deposits is proving to be more challenging, which in turn results in escalating costs and increasing demands for newer and more efficient imaging technologies. Also, producers are increasingly using seismic data to

enhance production from known fields by repeating time-lapse seismic surveys over a defined area. We believe that this trend should benefit seismic companies such as ION by extending the utility of subsurface imaging beyond exploration and into production monitoring, which can continue for decades.

We believe that E&P companies will, in the future, increasingly use seismic technology providers who will collaborate with them to tailor seismic surveys that address specific geophysical problems and to apply

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advanced imaging technologies to take into account the geologic peculiarities of a specific area. In the future, we expect that E&P companies will rely less on undifferentiated, mass seismic studies created using analog sensors and traditional processing technologies that do not adequately identify geologic complexities.

Becoming a Broad-Based Seismic Provider

Two acquisitions in 2004 were important in our evolution to becoming a broad-based seismic solutions company:

Our acquisition of Concept Systems Holdings Limited (Concept Systems) and its integrated planning, navigation, command & control, and data management software and solutions for towed streamer and seabed operations; and

Our acquisition of GX Technology Corporation (GXT), and its advanced seismic data imaging solutions services and seismic data libraries for the marine environment.

Through these and other acquisitions, along with our research and development efforts, our technologies and services include seismic data acquisition hardware, command and control software, value-added services associated with seismic survey design, seismic data processing and interpretation, and seismic data libraries.

In March 2010, we completed the formation of INOVA Geophysical, our joint venture with BGP. The scope of the joint venture s business is to design, develop, engineer and manufacture land-based equipment used in seismic data acquisition for the petroleum industry, and to conduct related research and development, distribution, sales and marketing and field support operations.

A key part of the strategy behind the joint venture is to leverage our research and development experience and expertise with the operational experience and expertise of BGP. The R&D centers for the joint venture have remained primarily in the U.S. and Canada. However, we intend to evaluate lower cost manufacturing opportunities in China on a case-by-case basis and pursue these opportunities when appropriate. In addition, it is intended for BGP s crews to field test new technology and related equipment for operational feedback and quality improvements. Finally, we expect that BGP will eventually purchase the majority of its land equipment from the joint venture and will purchase more ION products and services from our other business segments.

A key element of our business strategy has been to understand the challenges faced by E&P companies in survey planning, acquisition, processing and even interpretation, and to strive to develop and offer technology and services that enable us to work with the E&P companies to solve their challenges. We have found that a collaborative relationship with E&P companies, with a goal of better understanding their imaging challenges and then working with them and our contractor customers to assure that the right technologies are properly applied, is the most effective method for meeting our customers needs. This strategy of being a full solutions provider to solve the most difficult challenges for our customers is an important element of our long term business strategy, and we are implementing this approach globally through local personnel in our regional organizations who understand the unique challenges in their areas.

The rapid decline of natural gas prices in late 2008 and continuing through 2010 has made it even more important for the E&P industry to reduce the number of dry holes, optimize the wells that are successful and to solve more difficult oil challenges such as locating and extracting oil shale reserves. E&P companies continue to be interested in technology to increase production and in improving their understanding of targeted reservoirs, in both the exploration and production phases. We believe that our new technologies, such as DigiFIN™, Orca® and our 49% interest in INOVA Geophysical s FireFly, will continue to attract interest because they are designed to deliver improvements in image quality within more productive delivery systems. For more information regarding our products and services, see

Products and Services below.

In summary, our business strategy is predicated on successfully executing seven key imperatives:

Continuing to manage our cost structure to reflect current market and economic conditions while keeping key strategic technology programs progressing with an overall goal of enabling E&P companies to solve their complex reservoir problems most efficiently and effectively;

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Expanding our Solutions business in new regions with new customers and new land and marine service offerings, including proprietary services for E&P producers;

Globalizing our Solutions data processing business by opening advanced imaging centers in strategic locations, and expanding our presence in the land seismic processing segment, with emphasis on serving the national oil companies;

Developing and introducing our next generation of marine towed streamer products, with a goal of developing markets beyond the new vessel market;

Expanding our seabed imaging solutions business using our VectorSeis® Ocean (VSO) acquisition system platform and derivative products to obtain technical and market leadership in what we continue to believe is a very important and expanding market; and

Through our investment in INOVA Geophysical, increasing market share and profitability in land acquisition systems and furthering the commercialization of FireFly, as well as other land equipment technologies.

Also through our investment in INOVA Geophysical, we seek to leverage its land equipment business to design and deliver lower cost, more reliable land imaging systems to our worldwide customer base of land acquisition contractors while concurrently tapping into a broader set of global geophysical opportunities associated with the exploration, asset development, and production operations of BGP s parent, CNPC.

Full-Wave Digital

Our seismic data acquisition products and services, including the INOVA Geophysical seismic data acquisition product line, are well suited for traditional 2-D, 3-D, and 4-D data collection as well as more advanced multicomponent or full-wave digital seismic data collection techniques.

Conventional geophone sensors are based on a mechanical, coil-spring magnet arrangement. The single component geophone measures ground motion in one direction, even though reflected energy in the Earth travels in multiple directions. This type of geophone can capture only pressure waves (P-waves). P-waves represent only a portion of the full seismic wavefield. Conventional geophones have limitations in collecting shear waves (S-waves), which involve a component of particle motion that is orthogonal to the direction of wave propagation (a more horizontal component of motion). In addition, geophones require accurate placement both vertically and spatially. Inaccurate placement, which can result from poorly planned surveys or human error, can introduce distortions that negatively affect the final subsurface image.

Multicomponent seismic sensors are designed to record the full seismic wavefield by measuring reflected seismic energy in three directions. This vector-based measurement enables multicomponent sensors to record not only P-wave data, but also to record shear waves. ION s VectorSeis sensor was developed using MEMS accelerometer technology to enable a true vector measurement of all seismic energy reflected in the subsurface. VectorSeis is designed to capture the entire seismic signal and more faithfully record all wavefields traveling within the Earth. By measuring both P-waves and S-waves, the VectorSeis full-wave sensor records a more complete and accurate seismic dataset having higher frequency content than conventional sensors. When data recorded by VectorSeis is processed using the advanced imaging techniques offered by our Solutions segment, we are able to deliver higher-definition images of the subsurface to our oil and gas customers, which enables geophysicists to better identify subtle structural, rock, and fluid-oriented features in the Earth. In addition, we believe that full-wave technologies should deliver improved operating efficiencies in field acquisition and reduce cycle times across the seismic workflow, from planning through

acquisition and final image rendering.

VectorSeis acquires full-wave seismic data in both land and marine environments using a portfolio of advanced imaging platforms manufactured by ION and INOVA Geophysical:

VectorSeis Ocean (VSO) ION s redeployable ocean bottom cable system for the seabed;

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FireFly INOVA Geophysical s cableless full-wave land acquisition system; and

Scorpion® INOVA Geophysical s cable-based land acquisition system.

Products and Services

Systems Products

Products for our Systems segment include the following:

Marine Acquisition Systems Our traditional marine acquisition system consists of towed marine streamers and shipboard electronics that collect seismic data in water depths greater than 30 meters. Marine streamers, which contain hydrophones, electronic modules and cabling, may measure up to 12,000 meters in length and are towed (up to 20 at a time) behind a towed streamer seismic acquisition vessel. The hydrophones detect acoustical energy transmitted through water from the Earth s subsurface structures. Our DigiSTREAMER™ system, our next-generation towed streamer system, was successfully commissioned at the start of the North Sea season in 2008. Another DigiSTREAMER system was delivered during 2008, and a third DigiSTREAMER system was delivered in 2009. In 2010, we entered into a contract with BGP for delivery of a twelve-streamer DigiSTREAMER system in 2011. DigiSTREAMER uses solid streamer and continuous acquisition technology for towed streamer operations.

During 2004, we introduced our VectorSeis Ocean (VSO) system, an advanced system for seismic data acquisition using redeployable ocean bottom cable, and we shipped the first system to Reservoir Exploration Technology, ASA (RXT), a Norwegian seismic contractor. Since then, we have delivered five VSO systems to RXT. In 2007, we entered into a multi-year agreement with RXT under which RXT agreed to purchase a minimum of $160.0 million in VSO systems and related equipment from us through 2011. The agreement granted RXT exclusive rights to the VSO product line through 2011 and entitled us to receive a royalty of 2.1% of all revenues generated by RXT through the use of VSO equipment from January 2008 through the end of the term of the agreement. Through December 31, 2009, RXT had purchased only a total of $39 million of VSO systems and related equipment toward their commitment. Because RXT did not purchase the minimum annual quantity of equipment, in February 2010 we notified RXT that it no longer had exclusive rights to the VSO product line.

Marine Positioning Systems Our DigiCOURSE® marine streamer positioning system includes streamer cable depth control devices, lateral control devices, compasses, acoustic positioning systems, and other auxiliary sensors. This equipment is designed to control the vertical and horizontal positioning of the streamer cables and provides acoustic, compass, and depth measurements to allow processors to tie navigation and location data to geophysical data to determine the location of potential hydrocarbon reserves. DigiFIN™ is an advanced lateral streamer control system that we commercialized in 2008. We delivered nine DigiFIN systems in 2008 and 13 systems in 2009. In 2010, we sold an additional six DigiFIN systems and completed two DigiFIN vessel expansions. DigiFIN is designed to maintain tighter, more uniform marine streamer separation along the entire length of the streamer cable, which allows for better sampling of seismic data and improved subsurface images. We believe that DigiFIN also enables faster line changes and minimizes the requirements for in-fill seismic work.

Source and Source Control Systems We manufacture and sell air guns, which are the primary seismic energy source used in marine environments to initiate the acoustic energy transmitted through the Earth s subsurface. An air gun fires a high compression burst of air underwater to create an energy wave for seismic measurement. We offer a digital source control system (DigiSHOT®), which allows for reliable control of air gun arrays for 4-D exploration activities.

Geophones Geophones are analog sensor devices that measure acoustic energy reflected from rock layers in the Earth s subsurface using a mechanical, coil-spring element. We market a full suite of geophones and geophone test equipment that operate in most environments, including land, transition zone, and downhole. We believe our Sensor group is the leading designer and manufacturer of precision analog geophones used in seismic data acquisition. Our analog geophones are used in other industries as

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well. In January 2010, we announced that our land sensors business unit had commercialized a new, high performance geophone (the SM-24XL™), which features a simplified product design to deliver enhanced durability in the field and to record high-quality acoustic data for customers.

Software Products and Services

Through this segment, we supply software systems and services for towed marine streamer and seabed operations. Software developed by our subsidiary, Concept Systems, is installed on towed streamer marine vessels worldwide and is a component of many redeployable and permanent seabed monitoring systems. Products and services for our Software segment include the following:

Marine Imaging ORCA is our next-generation software product for towed streamer navigation and integrated data management applications. We believe that Orca has made significant inroads into the towed streamer market with several major seismic contractors adopting the technology for their new, high-end seismic vessels. During 2010, we observed 17 streamer vessels being installed with Orca, a number of these being replacements of legacy Concept Systems installations. Orca was initially targeted at larger scale vessels shooting highly complex surveys, but is now making inroads into smaller vessels working in less complex configurations. Orca includes modules designed to manage marine acquisition surveys integrating the navigation, source control, and streamer control functions. Orca can manage complex marine surveys such as time-lapse 4-D surveys and WATS (Wide Azimuth Towed Streamer) surveys. WATS is an advanced acquisition technique for imaging complex structures (for example, subsalt) in the marine environment, generally implemented with multiple source vessels that shoot at some distance from the streamer recording vessel. Orca is designed to function with our DigiFIN product, which enables streamer lateral control, and DigiSTREAMER, our new marine streamer acquisition system. SPECTRA® is Concept Systems legacy integrated navigation and survey control software system for towed streamer-based 2-D, 3-D, and 4-D seismic survey operations.

Seabed Imaging Concept Systems also offers GATOR®, an integrated navigation and data management software system for multi-vessel ocean bottom cable and transition zone (such as marshlands) operations. The GATOR system is designed to provide real-time, multi-vessel positioning and data management solutions for ocean-bottom, shallow-water, and transition zone crews.

Survey Design, Planning and Optimization Concept Systems also offers consulting services for planning, designing and supervising complex surveys, including 4D and WATS survey operations. Concept Systems acquisition expertise and in-field software platforms and development capability are designed to allow their clients, including oil companies and seismic acquisition contractors, to optimize these complex surveys, improving image quality and reducing costs.

Post-Survey Analysis Tools Concept Systems command and control systems such as Orca, SPECTRA and GATOR are designed to integrate with its post-survey tools for processing, analysis, and data quality control. These tools include the SPRINT® navigation processing and quality control software for marine geophysical surveys, and the REFLEX® software for seismic coverage and attribute analysis.

Solutions Services

Services for our Solutions segment include the following:

Seismic Data Processing Services In our Solutions segment, we believe that our GXT Imaging Solutions group is a leader in advanced land and marine seismic data processing services. E&P companies apply our solutions to produce high-quality fidelity subsurface images in marine, ocean bottom and land environments.

GXT offers processing and imaging services designed to help our E&P customers reduce exploration and production risk, appraise and develop reservoirs, and increase production. GXT develops a series of subsurface images by applying its processing technology to data owned or licensed by its customers and also provides its customers with support services (even onboard seismic vessels), such as data pre-

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conditioning for imaging and outsourced management, including quality control, of seismic data acquisition and image processing services.

GXT utilizes a globally distributed network of Linux-cluster processing centers throughout the world (including South America, Africa, Canada and Europe), scaled to local needs, which are combined with our major hub in Houston, to process seismic data by applying advanced proprietary algorithms and workflows that incorporate processing techniques such as illumination analysis, data conditioning and velocity modeling, and time and depth migration. These techniques help produce more detailed, higher-quality imaging of subsurface formations.

GXT pioneered pre-stack depth migration (PreSDM) technology, a processing technique involving the application of advanced, computer-intensive processing algorithms, which convert time-based seismic information to a geological depth basis. While pre-stack depth migration is not required for every imaging situation, it generally provides the most accurate subsurface images in areas of complex geology. Our Reverse Time Migration (RTM) technology was developed to improve imaging in areas where complex structural conditions or steeply dipping subsurface horizons have provided imaging challenges for oil and gas companies. Both PreSDM and RTM techniques have proved effective in their application to hard-to-image subsalt reservoirs in the Gulf of Mexico.

The Solutions segment has a broad portfolio of offerings throughout the entire seismic workflow. Our technologies are designed to allow us to clearly define a solution to ensure that our customers goals are met, such as removing false reflections and identifying fractures in reservoirs. Our service offerings include the following:

- imaging services, including full-wave processing designed to remove source-generated or ambient noise from data acquired with single-point sensors and develop higher resolution images of the subsurface; and
- support services, such as data pre-conditioning for imaging and outsourced management of seismic data acquisition and image processing services;
- velocity modeling designed to build and analyze velocity models in structurally complex environments;
- preSDM solutions designed to convert data acquired in the time domain to an accurate, depth-based domain; and
- reservoir analysis and interpretation.

Our AXIS Geophysics group (AXIS), based in Denver, Colorado, focuses on advanced seismic data processing for stratigraphically complex onshore environments. Many hydrocarbon plays, including shale gas, are impacted by subsurface anisotropy which causes seismic velocities to vary according to source-receiver direction. AXIS has developed a proprietary data processing technique called AZIM^{tm} that is designed to better account for the anisotropic effects of the Earth (i.e., different layers of geological formations that are not parallel to each other), which tend to distort seismic images. AZIM is designed to correct for these anisotropic effects by producing higher resolution images in areas where the velocity of seismic waves varies with compass direction (or azimuth). The AZIM technique is used to analyze fracture patterns within reservoirs.

We believe that the application of ION s advanced processing technologies and imaging techniques can better identify complex hydrocarbon-bearing structures and deeper exploration prospects. We also believe that the combination of GXT s capabilities in advanced velocity model building and depth imaging, along with AXIS capability in anisotropic imaging, provides an advanced toolkit for maximizing the data measurements obtained by our VectorSeis full-wave sensor.

Integrated Seismic Solutions (ISS) ION s ISS services are designed to manage the entire seismic process, from survey planning and design to data acquisition and management, through pre-processing and final subsurface imaging. The ISS group focuses on the technologically intensive components of the image development process, such as survey planning and design and data processing and interpretation,

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and outsources the logistics component to geophysical logistics contractors. ION offers its ISS services to customers on both a proprietary and multi-client basis. On both bases, the customers pre-fund a majority of the data acquisition costs. With the proprietary service, the customer also pays for the imaging and processing, but has exclusive ownership of the data after it has been processed. For multi-client surveys, we assume some of the processing costs but retain ownership of the marketing rights to the data and images and receive on-going license revenue from subsequent data license sales.

Seismic Data Libraries Since 2002, GXT has acquired and processed a growing seismic data library consisting of non-exclusive marine and ocean bottom data from around the world. The majority of the data libraries licensed by GXT consist of ultra-deep 2-D lines that E&P companies use to better evaluate the evolution of petroleum systems at the basin level, including insights into the character of source rocks and sediments, migration pathways, and reservoir trapping mechanisms. In many cases, the availability of geoscience data extends beyond seismic information to include magnetic, gravity, well log, and electromagnetic information, which help to provide a more comprehensive picture of the subsurface. Known as SPANS, these geophysical data libraries currently exist for major offshore basins worldwide, including the northern Gulf of Mexico, the southern Caribbean, the north and east coasts of South America, the east and west coasts of West Africa, the east and west coasts of India, northern Canada and Alaska, northeast Greenland and southeast Asia. In 2010, we completed the acquisition of an additional 6,500 kilometers of data off northeast Greenland, bringing that program s total to 12,000 kilometers. Additionally, we added 6,000 kilometers to our Canadian Beaufort program which now contains over 22,000 kilometers of data. Additional SPANS and other seismic and non-seismic programs are planned or under development for other regions of the world.

INOVA Geophysical

Joint Venture

On March 25, 2010, we completed the formation of our land equipment joint venture, INOVA Geophysical, with BGP. INOVA Geophysical is managed through a Board of Directors consisting of four members appointed by BGP and three members appointed by us.

The scope of the joint venture s business is to design, develop, engineer and manufacture, and conduct research and development, distribution, sales and marketing and field support operations, of land-based equipment used in seismic data acquisition for the petroleum industry. Excluded from the scope of the joint venture s business are (x) the analog sensor businesses of our company and of BGP and (y) the businesses of certain companies in which BGP or we were a minority owner at the date of the formation of the joint venture.

A key part of the strategy behind the joint venture is to leverage our research and development experience and expertise with the operational experience and expertise of BGP. The R&D centers for the joint venture have remained primarily in the U.S. and Canada. However, the joint venture intends to evaluate lower-cost manufacturing opportunities in China on a case-by-case basis and pursue these opportunities when appropriate. In addition, it is intended for BGP s crews to field test new technology and related equipment for operational feedback and quality improvements. Finally, we expect that BGP will eventually purchase the majority of its land equipment from the joint venture and will purchase more ION products and services from our other business segments.

Products

Products of INOVA Geophysical include the following:

Land Acquisition Systems INOVA Geophysical s cable-based Scorpion and ARIES® land acquisition systems consist of a central recording unit and multiple remote ground equipment modules that are connected by cable. The central

recording unit is in a transportable enclosure that serves as the control center of each system and is typically mounted within a vehicle or helicopter. The central recording unit receives digitized data, stores the data on storage media for subsequent processing, and displays the data on optional monitoring devices. It also provides calibration, status, and test functionality. The remote

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ground equipment consists of multiple remote modules and line taps positioned over the survey area. Seismic data is collected by analog geophones or VectorSeis digital sensors.

INOVA Geophysical s ARIES product line was acquired in connection with our acquisition of ARAM in September 2008. The product line consists of analog cable-based land acquisition systems and related peripherals and equipment. ARIES land system products include remote acquisition modules (RAMs), which acquire analog seismic data from the geophones and transmit the data digitally to the central processing equipment, and line tap units that interconnect baseline cables from the recording equipment to multiple receiver lines and function to retransmit data from the RAMs to central recording equipment. ARIES products also include system batteries (standard sealed or lithium-ion), central recording equipment (including seismic processing module and ARAM software), baseline cables that connect the central recording equipment with the taps and receiver line cables that connect geophones or hydrophone groups to a RAM. The latest version of ARIES the ARIES II land recording system features a 24-bit system architecture that is designed to dramatically improve channel capacity, ensure efficient equipment deployment, and maximize system performance.

Scorpion is capable of recording full-wave seismic data. Digital sensors can provide increased response linearity and bandwidth, which translates into higher resolution images of the subsurface. In addition, one digital sensor can replace a string of six or more analog geophones, providing users with equipment weight reduction and improved operating efficiencies.

FireFly is a cableless land acquisition system for full-wave land seismic data acquisition. By removing the constraints of cables, geophysicists can custom-design surveys for multiple subsurface targets and increase receiver station density to more fully sample the subsurface. We believe that the cableless design of FireFly enables contractors to efficiently operate in challenging, culturally-intensive environments. FireFly s benefits include a decrease in system weight and, we believe, superior operational efficiencies, reduction in operational troubleshooting time, and better defined sampled seismic data. Also, we believe that the data management capabilities of FireFly should reduce the amount of time spent pre-processing the data.

VectorSeis is used as the primary sensor device on the FireFly cableless system. Since 1999, VectorSeis full-wave technology has been used to acquire seismic data in North America, Europe, Asia, the Pacific Basin region, the Middle East, and the Commonwealth of Independent States.

Vibrators and Energy Sources Vibrators are devices carried by large vibroseis vehicles and, along with dynamite, are used as energy sources for land seismic acquisition. INOVA Geophysical markets and sells the AHV-IV™, an articulated tire-based vibrator vehicle, and a tracked vibrator, the XVib®, for use in environmentally sensitive areas such as the Arctic tundra and desert environments.

INOVA Geophysical s Pelton division is a provider of energy source control and positioning technologies. Pelton s Vib Pro™ control system provides vibrator vehicles with digital technology for energy control and global positioning system technology for navigation and positioning. Pelton s Shot Pro™ dynamite firing system, released in 2007, is the equivalent technology for seismic operations using dynamite energy sources.

Product Research and Development

Our research and development efforts have focused on improving both the quality of the subsurface image and the seismic data acquisition economics for our customers. Our ability to compete effectively in the manufacture and sale of seismic equipment and data acquisition systems, as well as related processing services, depends principally upon continued technological innovation. Development cycles of most products, from initial conception through commercial introduction, may extend over several years.

During 2010, our product development efforts continued across selective business lines aimed at the development of strategic key products and technologies. Major research and development programs are expected to continue for our Digi- line of marine streamer technologies. Also, in our data processing business, we are investing in continued improvements in productivity and in enhancing our applications to

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handle increasingly complex data acquisition environments and difficult-to-image geology. For a summary of our research and development expenditures during the past five years, see Item 6. *Selected Financial Data*.

Because many of these new products are under development, their commercial feasibility or degree of commercial acceptance, if any, is not yet known. No assurance can be given concerning the successful development of any new products or enhancements, the specific timing of their release or their level of acceptance in the marketplace.

Markets and Customers

Based on historical revenues, we believe that we are a market leader in numerous product lines, including full-wave sensors based upon micro-electro magnetic systems (MEMS), navigation and data management software, marine positioning and streamer control systems, redeployable seabed recording systems and, through INOVA Geophysical, cableless land acquisition systems.

Our principal customers are seismic contractors and E&P companies. Seismic contractors purchase our data acquisition systems and related equipment and software to collect data in accordance with their E&P company customers specifications or for their own seismic data libraries. We also market and sell products and offer services directly to E&P companies, primarily imaging-related processing services and multi-client seismic data libraries from our GXT subsidiary, as well as consulting services from Concept Systems and GXT. During 2010, 2009 and 2008, no single customer accounted for 10% or more of our consolidated net revenues.

In 2009, hydrocarbon price erosion caused E&P companies to revisit their capital investment plans, which, in turn, reverberated back through the supply chain to affect us both directly and indirectly through our seismic acquisition contractor customers. In 2010, we saw an expansion of E&P capital expenditure budgets as oil prices improved to within a range of approximately $85 to $100 per barrel by early 2011.

Contractors from China (including BGP) and other countries are increasingly active not only in their own countries but also in other international markets. As a result, a significant part of our marketing effort is focused on areas outside of the United States. Foreign sales are subject to special risks inherent in doing business outside of the United States, including the risk of armed conflict, civil disturbances, currency fluctuations, embargo and governmental activities, customer credit risks, and risk of non-compliance with U.S. and foreign laws, including tariff regulations and import/export restrictions.

We sell our products and services through a direct sales force consisting of employees and international third-party sales representatives responsible for key geographic areas. During 2010, 2009 and 2008, sales to destinations outside of North America accounted for approximately 60%, 64% and 60% of our consolidated net revenues, respectively. Further, systems sold to domestic customers are frequently deployed internationally and, from time to time, certain foreign sales require export licenses.

Traditionally, our business has been seasonal, with strongest demand in the fourth quarter of our fiscal year.

For information concerning the geographic breakdown of our net revenues, see Note 4 of *Notes to Consolidated Financial Statements*.

Manufacturing Outsourcing and Suppliers

Since 2003, we have increased the use of contract manufacturers in our Systems segment as an alternative to manufacturing our own products. We have outsourced the manufacturing of our towed marine streamers, our redeployable ocean bottom cables and various components of VectorSeis Ocean. We may experience supply

interruptions, cost escalations, and competitive disadvantages if we do not monitor these relationships properly.

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Competition

The market for seismic products and services is highly competitive and is characterized by continual changes in technology. Our principal competitor for land and marine seismic equipment is Societe d Etudes Recherches et Construction Electroniques (Sercel), an affiliate of the French seismic contractor, Compagnie General de Geophysique Veritas (CGGVeritas). Sercel possesses the advantage of being able to sell its products and services to an affiliated seismic contractor that operates both land crews and seismic acquisition vessels, providing it with a greater ability to test new technology in the field and to capture a captive internal market for product sales. Sercel has also demonstrated that it is willing to offer extended financing sales terms to customers in situations where we declined to do so due to credit risk. We also compete with other seismic equipment companies on a product-by-product basis. Our ability to compete effectively in the manufacture and sale of seismic instruments and data acquisition systems depends principally upon continued technological innovation, as well as pricing, system reliability, reputation for quality, and ability to deliver on schedule.

Certain seismic contractors have designed, engineered, and manufactured seismic acquisition technology in-house (or through a controlled network of third-party vendors) in order to achieve differentiation versus their competition. For example, WesternGeco L.L.C. (a wholly-owned subsidiary of Schlumberger Limited, a large integrated oilfield services company) relies heavily on its in-house technology development for designing, engineering, and manufacturing its Q-Technology platform, which includes seismic acquisition and processing systems. Although this technology competes directly with ION s technology for marine streamer, seabed, and land acquisition, WesternGeco does not provide Q-Technology services to other seismic acquisition contractors. However, the risk exists that other seismic contractors may decide to conduct more of their own seismic technology development, which would put additional pressures on the demand for ION acquisition equipment.

In addition, over the last several years, we have seen both new-build and consolidation activity within the marine towed streamer segment, which could impact our business results in the future. We expect the number of 2-D and 3-D marine streamer vessels, including those in operation, under construction, or announced additions to capacity, to increase to approximately 132 by year-end 2011, compared to approximately 119 at December 31, 2010. In addition, there has been an increase in acquisition activity within the sector, with the major vessel operators Schlumberger, CGGVeritas, and Petroleum Geo-Services ASA (PGS) all moving to acquire new market entrants in the last several years. Many of these incumbent operators develop their own marine streamer technologies, such that consolidation in the sector reduces the number of potential customers and vessel outfitting opportunities for us.

Our GXT Imaging Solutions group competes with more than a dozen processing companies that are capable of providing pre-stack depth migration services to E&P companies. See *Products and Services Solutions Services*. While the barriers to entry into this market are relatively low, the barriers to competing at the higher end of the market, which is the advanced pre-stack depth migration market, where our efforts are focused, are significantly higher. At the higher end of this market, CGGVeritas and WesternGeco are our Solutions division s two primary competitors for advanced imaging services. Both of these companies are larger than ION in terms of revenues, number of processing locations, and sales and marketing resources. In addition, both CGGVeritas and WesternGeco possess an advantage of being part of affiliated seismic contractor companies, providing them with access to customer relationships and seismic datasets that require processing.

Concept Systems provides advanced data integration software and services to seismic contractors acquiring data using either towed streamer vessels or ocean-bottom cable on the seabed. Vessels or ocean-bottom cable crews that do not use Concept Systems software either rely upon manual data integration, reconciliation, and quality control, or develop and maintain their own proprietary software packages. There is evidence of growing competition to Concept Systems core command and control business from Sercel and other smaller companies. Concept Systems has signed long term (between two and five years) technology partnerships with many of its key clients and will continue to seek to develop

key new technologies with these clients. An important competitive factor for companies in the same business as Concept Systems is the ability to provide advanced complex command and control software with a high level of reliability combined with expert systems and project support to ensure operations run cost effectively.

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Intellectual Property

We rely on a combination of patents, copyrights, trademark, trade secrets, confidentiality procedures, and contractual provisions to protect our proprietary technologies. Although our portfolio of patents is considered important to our operations and particular patents may be material to specific business lines, no one patent is considered essential to our consolidated business operations.

Our patents, copyrights, and trademarks offer us only limited protection. Our competitors may attempt to copy aspects of our products despite our efforts to protect our proprietary rights, or may design around the proprietary features of our products. Policing unauthorized use of our proprietary rights is difficult, and we are unable to determine the extent to which such use occurs. Our difficulties are compounded in certain foreign countries where the laws do not offer as much protection for proprietary rights as the laws of the United States. From time to time, third parties inquire and claim that we have infringed upon their intellectual property rights and we make similar inquiries and claims to third parties. No material liabilities have resulted from these third party claims to date. For more information on current litigation related to the Company s intellectual property, see Item 3. *Legal Proceedings*.

The information contained in this Annual Report on Form 10-K contains references to trademarks, service marks and registered marks of ION and our subsidiaries, as indicated. Except where stated otherwise or unless the context otherwise requires, the terms VectorSeis, System Four, FireFly, ARIES, ARIES II, DigiSHOT, XVib, D GATOR, SPECTRA, Orca, Scorpion, SPRINT, DigiBIRD, and REFLEX refers to VECTORSEIS® SYSTEM FOUR®, FIREFLY®, ARIES®, ARIES II®, DIGISHOT®, XVIB®, DIGICOURSE®, GATOR®, SPECTRA®, ORCA®, SCORPION®, SPRINT®, DigiBIRD® and REFLEX® registered marks owned by ION or INOVA Geophysical, and the terms AZIM, BasinSPAN, DigiSTREAMER, SM-24XL, AHV-IV, Vib Pro, Shot Pro, and DigiFIN, AZIM™, BasinSPAN™, DigiSTREAMER™, SM-24XL™, AHV-IV™, Vib Pro™, Shot Pro™ and DigiFIN™ trademarks and service marks owned by ION or INOVA Geophysical.

Regulatory Matters

Our operations are subject to laws, regulations, government policies, and product certification requirements worldwide. Changes in such laws, regulations, policies or requirements could affect the demand for our products or result in the need to modify products, which may involve substantial costs or delays in sales and could have an adverse effect on our future operating results. Our export activities are also subject to extensive and evolving trade regulations. Certain countries are subject to trade restrictions, embargoes, and sanctions imposed by the U.S. government. These restrictions and sanctions prohibit or limit us from participating in certain business activities in those countries.

Our operations are subject to numerous local, state, and federal laws and regulations in the United States and in foreign jurisdictions concerning the containment and disposal of hazardous materials, the remediation of contaminated properties, and the protection of the environment. We do not currently foresee the need for significant expenditures to ensure our continued compliance with current environmental protection laws. Regulations in this area are subject to change, and there can be no assurance that future laws or regulations will not have a material adverse effect on us.

The Deepwater Horizon incident in the U.S. Gulf of Mexico in April 2010 resulted in a moratorium on certain offshore drilling activities by the Bureau of Ocean Energy Management, Regulation and Enforcement, or BOEMRE . This event negatively impacted our Solutions segment during our second quarter of 2010, during which we experienced a reduction in new venture and multi-client seismic data library sales. The BOEMRE has issued and is expected to issue additional new safety and environmental guidelines or regulations for drilling in the Gulf of Mexico and other offshore regions, and may take other steps that could increase the costs of exploration and production, reduce the area of operations and result in permitting delays.

Our customers operations are also significantly impacted by laws and regulations concerning the protection of the environment and endangered species. For instance, many of our marine contractors have been affected by regulations protecting marine mammals in the Gulf of Mexico. To the extent that our customers

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operations are disrupted by future laws and regulations, our business and results of operations may be materially adversely affected.

Employees

As of December 31, 2010, we had 915 regular, full-time employees, 598 of whom were located in the U.S. From time to time and on an as-needed basis, we supplement our regular workforce with individuals that we hire temporarily or as independent contractors in order to meet certain internal manufacturing or other business needs. Our U.S. employees are not represented by any collective bargaining agreement, and we have never experienced a labor-related work stoppage. We believe that our employee relations are satisfactory. During 2010, 256 of our legacy land systems employees became employees of INOVA Geophysical, thereby reducing our headcount.

Financial Information by Segment and Geographic Area

For a discussion of financial information by business segment and geographic area, see Note 4 of *Notes to Consolidated Financial Statements.*

Item 1A. ***Risk Factors***

This report contains or incorporates by reference statements concerning our future results and performance and other matters that are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act). These statements involve known and unknown risks, uncertainties, and other factors that may cause our or our industry s results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as may, will, would, should, intend, ex plan, anticipate, believe, estimate, predict, potential, or continue or the negative of such terms or other con terminology. Examples of other forward-looking statements contained or incorporated by reference in this report include statements regarding:

- the effects of current and future worldwide economic conditions and demand for oil and natural gas and seismic equipment and services;
- the on-going effects and aftermath of the Deepwater Horizon disaster in the Gulf of Mexico on regulatory requirements affecting us and our customers and on demand for seismic equipment and services;
- future benefits to be derived from our INOVA Geophysical joint venture;
- a continuation in the future of increased capital expenditures for seismic spending;
- the expected outcome of litigation and other claims against us;
- the timing of anticipated sales;
- future levels of spending by our customers;
- future oil and gas commodity prices;
- expected net revenues, income from operations and net income;

expected gross margins for our products and services;

future benefits to our customers to be derived from new products and services;

future growth rates for our products and services;

the degree and rate of future market acceptance of our new products and services;

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our expectations regarding oil and gas exploration and production companies and contractor end-users purchasing our more technologically-advanced products and services;

anticipated timing and success of commercialization and capabilities of products and services under development and start-up costs associated with their development;

expected improved operational efficiencies from our full-wave digital products and services;

future cash needs and future availability of cash to fund our operations and pay our obligations;

potential future acquisitions;

future levels of capital expenditures;

our ability to maintain our costs at consistent percentages of our revenues in the future;

future demand for seismic equipment and services;

future seismic industry fundamentals;

future opportunities for new products and projected research and development expenses;

success in integrating our acquired businesses;

sufficient future profits to fully utilize our net operating losses;

future compliance with our debt financial covenants;

expectations regarding realization of deferred tax assets; and

anticipated results regarding accounting estimates we make.

These forward-looking statements reflect our best judgment about future events and trends based on the information currently available to us. Our results of operations can be affected by inaccurate assumptions we make or by risks and uncertainties known or unknown to us. Therefore, we cannot guarantee the accuracy of the forward-looking statements. Actual events and results of operations may vary materially from our current expectations and assumptions. While we cannot identify all of the factors that may cause actual results to vary from our expectations, we believe the following factors should be considered carefully:

Our INOVA Geophysical Joint Venture with BGP involves numerous risks.

Our INOVA Geophysical joint venture with BGP is focused on designing, engineering, manufacturing, research and development, sales and marketing and field support of land-based equipment used in seismic data acquisition for the oil and gas industry. Excluded from the scope of the joint venture s business are the analog sensor businesses of our company and BGP and the businesses of certain companies in which BGP or we are currently a minority owner. In addition to these excluded businesses, all of our other businesses including our Systems and Software segments and our Solutions division, which includes our Imaging Solutions, Integrated Seismic Solutions (ISS) and BasinSPAN and seismic data library businesses remain owned and operated by us and do not comprise a part of the joint venture.

The INOVA Geophysical joint venture involves the integration of multiple product lines and business models from us and BGP that previously have operated independently. This has been and will continue to be a complex and time consuming process.

There can be no assurance that we will achieve the expected benefits of the joint venture. The INOVA Geophysical joint venture and future joint ventures or acquisitions that we complete may result in unexpected costs, expenses, and liabilities, which may have a material adverse effect on our business, financial condition or results of operations. We may encounter difficulties in developing and expanding the business of INOVA Geophysical, funding any future capital contributions to the joint venture, exercising influence over the management and activities of the joint venture, quality control concerns regarding joint venture products and services and potential conflicts of interest with the joint venture and our joint venture partner. Any inability to meet our obligations as a joint venture partner under the joint venture agreement could result in our being

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subject to penalties and reduced percentage interests in the joint venture for our company. Also, we could be disadvantaged in the event of disputes and controversies with our joint venture partner, since our joint venture partner is a relatively significant customer of our products and services and future products and services of the joint venture.

The joint venture is also subject to, and exposes us to, various additional risks that could adversely affect our results of operations. These risks include the following:

- increased costs associated with the integration and operation of the new business and new technologies and the management of geographically dispersed operations;
- risks associated with the assimilation of new technologies (including incorporating BGP s land seismic equipment with our existing land seismic imaging product lines that were contributed to the joint venture), operations, sites, and personnel;
- difficulties in retaining and integrating key technical, sales and marketing personnel and the possible loss of such employees and costs associated with their loss;
- difficulties associated with preserving relationships with our customers, partners and vendors;
- risks that any technology developed by the joint venture may not perform as well as we had anticipated;
- the diversion of management s attention and other resources from other business operations and related concerns;
- the potential inability to replicate operating efficiencies in the joint venture s operations;
- potential impairments of goodwill and intangible assets;
- the requirement to maintain uniform standards, controls and procedures;
- the impairment of relationships with employees and customers as a result of the integration of management personnel from different companies;
- the divergence of our interests from BGP s interests in the future, disagreements with BGP on ongoing manufacturing, research and development and operational activities, or the amount, timing or nature of further investments in the joint venture;
- the terms of our joint venture arrangements may turn out to be unfavorable to us;
- we currently own 49% of the total equity interests in INOVA Geophysical, so there are certain decisions affecting the business of the joint venture that we cannot control or influence;
- we may not be able to realize the operating efficiencies, cost savings or other benefits that we expect from the joint venture;
- the joint venture s cash flows may be inadequate to fund its capital requirements, thereby requiring additional contributions to the capital of the joint venture by us and by BGP;

joint venture profits and cash flows may prove inadequate to fund cash dividends from the joint venture to the joint venture partners; and

the joint venture may experience difficulties and delays in ramping up production of the joint venture s products.

If the INOVA Geophysical joint venture is not successful, our business, results of operations and financial condition will likely be adversely affected.

In addition, the terms of the joint venture s governing instruments and the agreements regarding BGP s investment in our company contain a number of restrictive provisions affecting ION. For example, an investors rights agreement grants pre-emptive rights to BGP with respect to certain future issuances of our stock. These restrictions may adversely affect our ability to quickly raise funds through a future issuance of

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our securities, and could have the effect of discouraging, delaying or preventing a merger or acquisition of our company that our stockholders may otherwise consider to be favorable.

We are subject to intense competition, which could limit our ability to maintain or increase our market share or to maintain our prices at profitable levels.

Many of our sales are obtained through a competitive bidding process, which is standard for our industry. Competitive factors in recent years have included price, technological expertise, and a reputation for quality, safety and dependability. While no single company competes with us in all of our segments, we are subject to intense competition in each of our segments. New entrants in many of the markets in which certain of our products and services are currently strong should be expected. See Item 1. *Business Competition.* We compete with companies that are larger than we are in terms of revenues, number of processing locations and sales and marketing resources. A few of our competitors have a competitive advantage in being part of an affiliated seismic contractor company. In addition, we compete with major service providers and government-sponsored enterprises and affiliates. Some of our competitors conduct seismic data acquisition operations as part of their regular business, which we do not, and have greater financial and other resources than we do. These and other competitors may be better positioned to withstand and adjust more quickly to volatile market conditions, such as fluctuations in oil and natural gas prices, as well as changes in government regulations. In addition, any excess supply of products and services in the seismic services market could apply downward pressure on prices for our products and services. The negative effects of the competitive environment in which we operate could have a material adverse effect on our results of operations.

We may be unable to obtain broad intellectual property protection for our current and future products and we may become involved in intellectual property disputes.

We rely on a combination of patent, copyright, and trademark laws, trade secrets, confidentiality procedures, and contractual provisions to protect our proprietary technologies. We believe that the technological and creative skill of our employees, new product developments, frequent product enhancements, name recognition, and reliable product maintenance are the foundations of our competitive advantage. Although we have a considerable portfolio of patents, copyrights, and trademarks, these property rights offer us only limited protection. Our competitors may attempt to copy aspects of our products despite our efforts to protect our proprietary rights, or may design around the proprietary features of our products. Policing unauthorized use of our proprietary rights is difficult, and we are unable to determine the extent to which such use occurs. Our difficulties are compounded in certain foreign countries where the laws do not offer as much protection for proprietary rights as the laws of the United States.

Third parties inquire and claim from time to time that we have infringed upon their intellectual property rights. Many of our competitors own their own extensive global portfolio of patents, copyrights, trademarks, trade secrets, and other intellectual property to protect their proprietary technologies. We believe that we have in place appropriate procedures and safeguards to help ensure that we do not violate a third party s intellectual property rights. However, no set of procedures and safeguards is infallible. We may unknowingly and inadvertently take action that is inconsistent with a third party s intellectual property rights, despite our efforts to do otherwise. Any such claims from third parties, with or without merit, could be time consuming, result in costly litigation, result in injunctions, require product modifications, cause product shipment delays or require us to enter into royalty or licensing arrangements. Such claims could have a material adverse affect on our results of operations and financial condition.

Much of our litigation in recent years have involved disputes over our and others rights to technology. See Item 3. *Legal Proceedings.*

Our stock price has been volatile from time to time. It declined precipitously during portions of 2008 through 2010, and could decline again.

The securities markets in general and our common stock in particular have experienced significant price and volume volatility in recent years. The market price and trading volume of our common stock may

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continue to experience significant fluctuations due not only to general stock market conditions but also to a change in sentiment in the market regarding our operations or business prospects or those of companies in our industry. In addition to the other risk factors discussed in this section, the price and volume volatility of our common stock may be affected by:

- operating results that vary from the expectations of securities analysts and investors;
- factors influencing the levels of global oil and natural gas exploration and exploitation activities, such as a decline in prices for natural gas in North America or disasters such as the Deepwater Horizon incident in the Gulf of Mexico in 2010;
- the operating and securities price performance of companies that investors or analysts consider comparable to us;
- announcements of strategic developments, acquisitions and other material events by us or our competitors; and
- changes in global financial markets and global economies and general market conditions, such as interest rates, commodity and equity prices and the value of financial assets.

To the extent that the price of our common stock remains at lower levels or it declines further, our ability to raise funds through the issuance of equity or otherwise use our common stock as consideration will be reduced. In addition, further increases in our leverage may make it more difficult for us to access additional capital. These factors may limit our ability to implement our operating and growth plans.

The drilling moratorium in the U.S. Gulf of Mexico and the other regulatory initiatives undertaken in response to the Deepwater Horizon disaster and resulting oil spill in the U.S. Gulf of Mexico, has adversely affected, and could adversely affect in the future, our customers and our business.

In April 2010, the Deepwater Horizon drilling rig in the U.S. Gulf of Mexico sank following a catastrophic explosion and fire, which resulted in the release of millions of gallons of hydrocarbons. In response to this incident, the Minerals Management Service (now known as the Bureau of Ocean Energy Management, Regulation and Enforcement, or BOEMRE) of the U.S. Department of the Interior issued a notice on May 30, 2010 implementing a six-month moratorium on certain drilling activities in the U.S. Gulf of Mexico. The moratorium was lifted in October 2010, but the BOEMRE has issued and is expected to issue new safety and environmental guidelines or regulations for drilling in the Gulf of Mexico and in other U.S. offshore locations. On December 1, 2010, the U.S. Department of the Interior announced that the Atlantic Coast and the eastern Gulf of Mexico would be closed to offshore oil and gas drilling through 2017. In addition, as a result of these changes, the permitting process for exploration and development activities in the U.S. Gulf of Mexico has slowed considerably, resulting in very limited levels of activity there. These new safety and environmental regulations will expose our customers, and could expose us, to significant additional costs and liabilities. In addition, these and any such similar future laws and regulations could result in increased compliance costs or additional operating restrictions that may adversely affect the financial health of our customers or decrease the demand for our services. It is not possible to estimate whether or when drilling operations in the Gulf of Mexico will return to normal activity levels, due to uncertainties surrounding the timing for the issuance of drilling permits by the U.S. Department of Interior and new regulations related to drilling operations.

Although it is difficult to predict the ultimate impact of the moratorium or any new guidelines, regulations or legislation, a prolonged suspension of drilling activity in the Gulf of Mexico and other areas, new regulations and increased liability for companies operating in this sector would adversely affect many of our customers who operate in the Gulf. This could, in turn, adversely affect our business, results of operations and financial condition, particularly

regarding sales of our marine seismic equipment and our Solutions segment s survey and processing activities with respect to locations in the Gulf of Mexico. In fact, this incident negatively impacted our Solutions segment during the second quarter of 2010 by our experiencing a reduction in new venture and multi-client seismic data library sales. Data processing activity in our Solutions segment was not similarly impacted by this incident during the second quarter of 2010, but could be adversely

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impacted in 2011. The uncertainties that have resulted from the incident s aftermath adversely affects us, our customers and other providers of equipment and services to E&P companies, due to the lack of visibility as to which companies will continue to be active in U.S. Gulf of Mexico deepwater exploration and development. As a result, we cannot currently predict the extent to which these events may adversely affect our future business, the extent and length of time that any such adverse impact will be felt.

If we, our option holders or stockholders holding registration rights sell additional shares of our common stock in the future, the market price of our common stock could decline. Additionally, our outstanding shares of Series D Preferred Stock are convertible into shares of our common stock. The conversion of the Series D Preferred Stock and exercise of our stock options could result in substantial dilution to our existing stockholders. Sales in the open market of the shares of common stock acquired upon such conversion or exercises may have the effect of reducing the then-current market price for our common stock.

The market price of our common stock could decline as a result of sales of a large number of shares of our common stock in the market in the future, or the perception that such sales could occur. These sales, or the possibility that these sales may occur, could make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. As of February 18, 2011, we had 153,028,861 shares of common stock issued and outstanding. Substantially all of these shares are available for sale in the public market, subject in some cases to volume and other limitations or delivery of a prospectus. At February 18, 2011, we had outstanding stock options to purchase up to 7,574,842 shares of our common stock at a weighted average exercise price of $7.45 per share. We also had, as of that date, 977,178 shares of common stock reserved for issuance under outstanding restricted stock and restricted stock unit awards.

As of February 18, 2011, Fletcher International, Ltd., the holder of our Series D Preferred Stock, held 22,000 shares of our Series D-1 Cumulative Convertible Preferred Stock and 5,000 shares of our Series D-2 Cumulative Convertible Preferred Stock. Under the terms of the agreement with Fletcher by which it purchased the Series D Preferred Stock, Fletcher has the ability to sell, under currently effective registration statements, the shares of our common stock acquired by it upon conversion of its remaining shares of Series D Preferred Stock. The shares of our Series D Preferred Stock held by Fletcher as of February 18, 2011 are convertible into 6,065,075 shares of our common stock. The conversion of our outstanding shares of Series D Preferred Stock into shares of our common stock will dilute the ownership interests of existing stockholders. Sales in the public market of shares of common stock issued upon conversion would likely apply downward pressure on prevailing market prices of our common stock.

The conversion price of our outstanding Series D Preferred Stock is also subject to certain customary anti-dilution adjustments. For additional information regarding the terms of our Series D Preferred Stock, see Item 7. *Management s Discussion and Analysis of Financial Condition and Results of Operations*. We currently have ongoing litigation with Fletcher in Delaware regarding issues involving our Series D Preferred Stock. For more information regarding our litigation with Fletcher, see Item 3. *Legal Proceedings*.

Shares of our common stock are also subject to certain demand and piggyback registration rights held by Laitram, L.L.C. We also may enter into additional registration rights agreements in the future in connection with any subsequent acquisitions or securities transactions we may undertake. Any sales of our common stock under these registration rights arrangements with Laitram or other stockholders could be negatively perceived in the trading markets and negatively affect the price of our common stock. Sales of a substantial number of our shares of common stock in the public market under these arrangements, or the expectation of such sales, could cause the market price of our common stock to decline.

A depressed economic and credit environment and lower natural gas prices could have an adverse effect on customer demand for certain of our products and services, which in turn would adversely affect our results of

operations, our cash flows, our financial condition, our ability to borrow and our stock price.

Global market and economic conditions weakened significantly beginning in mid-2008. The global recession contributed to weakened demand and lower prices for natural gas on a worldwide basis, which reduced the levels of exploration for natural gas. Historically, demand for our products and services has been

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sensitive to the level of exploration spending by E&P companies and geophysical contractors. The demand for our products and services will be reduced if exploration expenditures remain low. During periods of reduced levels of exploration for oil and natural gas, there have been oversupplies of seismic data and downward pricing pressures on our seismic products and services, which in turn, have limited our ability to meet sales objectives and maintain profit margins for our products and services. In the past, these then-prevailing industry conditions have had the effect of reducing our revenues and operating margins. The markets for oil and gas historically have been volatile and are likely to continue to be so in the future.

Turmoil or uncertainty in the credit markets and its potential impact on the liquidity of major financial institutions may have an adverse effect on our ability to fund our business strategy through borrowings under either existing or new debt facilities in the public or private markets and on terms we believe to be reasonable. Likewise, there can be no assurance that our customers will be able to borrow money on a timely basis or on reasonable terms, which could have a negative impact on their demand for our products and impair their ability to pay us for our products and services on a timely basis, or at all. Our sales are affected by interest rate fluctuations and the availability of liquidity, and we would be adversely affected by increases in interest rates or liquidity constraints. Rising interest rates may also make certain alternative products and services provided by our competitors more attractive to customers, which could lead to a decline in demand for our products and services. This could have a material adverse effect on our business, results of operations, financial condition and cash flows.

It is difficult to predict how long the economic slowdown will persist, whether it will deteriorate further, and which of our products and services will be adversely affected. We may have further impairment losses if events or changes in circumstances occur which reduce the fair value of an asset below its carrying amount. As a result, these conditions could adversely affect our financial condition and results of operations, and we may be subject to increased disputes and litigation because of these events and issues.

Stock markets, in general, have experienced in recent years, and may continue to experience, significant price and volume volatility, and the market price of our common stock may continue to be subject to similar market fluctuations unrelated to our operating performance or prospects.

If capital expenditures for E&P companies remain at reduced levels compared to prior periods, the demand for our products and services may remain weak and our results of operations will be adversely affected.

Demand for our products and services depends upon the level of spending by E&P companies and seismic contractors for exploration and development activities, and those activities depend in large part on oil and gas prices. Spending on products and services such as those we provide our customers are of a highly discretionary nature and subject to rapid and material change. Any significant decline in oil and gas related spending on behalf of our customers could cause alterations in our capital spending plans, project modifications, delays or cancellations, general business disruptions or delays in payment, or non-payment of amounts that are owed to us and could have a material adverse effect on our financial condition and results of operations and on our ability to continue to satisfy all of the covenants in our loan agreements. Additionally, increases in oil and gas prices may not increase demand for our products and services or otherwise have a positive effect on our financial condition or results of operations. Oil and gas companies willingness to explore, develop and produce depends largely upon prevailing industry conditions that are influenced by numerous factors over which our management has no control, such as:

- the supply of and demand for oil and gas;
- the level of prices, and expectations about future prices, of oil and gas;
- the cost of exploring for, developing, producing and delivering oil and gas;

the expected rates of declining current production;

the discovery rates of new oil and gas reserves;

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weather conditions, including hurricanes, that can affect oil and gas operations over a wide area, as well as less severe inclement weather that can preclude or delay seismic data acquisition;

domestic and worldwide economic conditions;

political instability in oil and gas producing countries;

technical advances affecting energy consumption;

government policies regarding the exploration, production and development of oil and gas reserves;

the ability of oil and gas producers to raise equity capital and debt financing; and

merger and divestiture activity among oil and gas companies and seismic contractors.

Many of our products contain more advanced technologies than certain products that our competition offer, and these products may tend to be, for that reason, more expensive than products of our competitors, thereby giving them a pricing advantage.

Although we believe that the long-term trend is favorable, the level of oil and gas exploration and production activity has been volatile in recent years. Previously forecasted trends in oil and gas exploration and development activities may not continue and demand for our products and services may not reflect the level of activity in the industry. Any prolonged substantial reduction in oil and gas prices would likely affect oil and gas production levels and therefore adversely affect demand for the products and services we provide.

We derive a substantial amount of our revenues from foreign operations and sales, which pose additional risks.

Sales to customers outside of North America accounted for approximately 60% of our consolidated net revenues for 2010, and we believe that export sales will remain a significant percentage of our revenue. U.S. export restrictions affect the types and specifications of products we can export. Additionally, to complete certain sales, U.S. laws may require us to obtain export licenses, and we cannot assure you that we will not experience difficulty in obtaining these licenses.

Like many energy service companies, we have operations in and sales into certain international areas, including parts of the Middle East, West Africa, Latin America, Asia Pacific and the Commonwealth of Independent States, that are subject to risks of war, political disruption (such as the recent political turmoil in Egypt), civil disturbance, political corruption, possible economic and legal sanctions (such as possible restrictions against countries that the U.S. government may deem to sponsor terrorism) and changes in global trade policies. Our sales or operations may become restricted or prohibited in any country in which the foregoing risks occur. In particular, the occurrence of any of these risks could result in the following events, which in turn, could materially and adversely impact our results of operations:

disruption of oil and natural gas E&P activities;

restriction of the movement and exchange of funds;

inhibition of our ability to collect receivables;

enactment of additional or stricter U.S. government or international sanctions;

limitation of our access to markets for periods of time;

expropriation and nationalization of assets of our company or those of our customers;

political and economic instability, which may include armed conflict and civil disturbance;

currency fluctuations, devaluations, and conversion restrictions;

confiscatory taxation or other adverse tax policies; and

governmental actions that may result in the deprivation of our contractual rights.

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Our international operations and sales increase our exposure to other countries restrictive tariff regulations, other import/export restrictions and customer credit risk.

In addition, we are subject to taxation in many jurisdictions and the final determination of our tax liabilities involves the interpretation of the statutes and requirements of taxing authorities worldwide. Our tax returns are subject to routine examination by taxing authorities, and these examinations may result in assessments of additional taxes, penalties and/or interest.

Our operating results may fluctuate from period to period, and we are subject to seasonality factors.

Our operating results are subject to fluctuations from period to period as a result of new product or service introductions, the timing of significant expenses in connection with customer orders, unrealized sales, levels of research and development activities in different periods, the product mix sold, and the seasonality of our business. Because many of our products feature a high sales price and are technologically complex, we generally have experienced long sales cycles for these products and historically incur significant expense at the beginning of these cycles for component parts and other inventory necessary to manufacture a product in anticipation of a future sale, which may not ultimately occur. In addition, the revenues from our sales can vary widely from period to period due to changes in customer requirements and demand. These factors can create fluctuations in our net revenues and results of operations from period to period. Variability in our overall gross margins for any period, which depend on the percentages of higher-margin and lower-margin products and services sold in that period, compounds these uncertainties. As a result, if net revenues or gross margins fall below expectations, our results of operations and financial condition will likely be adversely affected. Additionally, our business can be seasonal in nature, with strongest demand typically in the fourth calendar quarter of each year. Customer budgeting cycles at times result in higher spending activity levels by our customers at different points of the year. While the fourth quarter of 2010 was strong, the fourth quarter of 2009 was not as strong as seen historically because the typical discretionary spending that normally occurs during the fourth quarter was not realized.

Due to the relatively high sales price of many of our products and seismic data libraries and relatively low unit sales volume, our quarterly operating results have historically fluctuated from period to period due to the timing of orders and shipments and the mix of products and services sold. This uneven pattern makes financial predictions for any given period difficult, increases the risk of unanticipated variations in our quarterly results and financial condition, and places challenges on our inventory management. Delays caused by factors beyond our control, such as the granting of permits for seismic surveys by third parties, the effect from disasters such as the Deepwater Horizon incident in the Gulf of Mexico and the availability and equipping of marine vessels, can affect our Solutions segment s revenues from its processing and ISS services from period to period. Also, delays in ordering products or in shipping or delivering products in a given period could significantly affect our results of operations for that period. Fluctuations in our quarterly operating results may cause greater volatility in the market price of our common stock.

We invest significant sums of money in acquiring and processing seismic data for our Solutions multi-client data library.

We invest significant amounts in acquiring and processing new seismic data to add to our Solutions multi-client data library. A majority of these investments are funded by our customers, while the remainder is recovered through future data licensing fees. In 2010, we invested $64.4 million in our multi-client data library. Our customers generally commit to licensing the data prior to our initiating a new data library acquisition program. However, the aggregate amounts of future licensing fees for this data are sometimes uncertain and depend on a variety of factors, including the market prices of oil and gas, customer demand for seismic data in the library, and the availability of similar data from competitors. For example, the Deepwater Horizon incident in the Gulf of Mexico in April 2010 adversely affected our

library sales in the second quarter of 2010; likewise, it is very possible that our processing activities could be affected by the continued slow pace of exploration and development activity in the U.S. Gulf of Mexico.

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By making these investments in acquiring and processing new seismic data for our Solutions multi-client library, we are exposed to the following risks:

We may not fully recover our costs of acquiring and processing seismic data through future sales. The ultimate amounts involved in these data sales are uncertain and depend on a variety of factors, many of which are beyond our control.

The timing of these sales is unpredictable and can vary greatly from period to period. The costs of each survey are capitalized and then amortized as a percentage of sales and/or over the expected useful life of the data. This amortization will affect our earnings and, when combined with the sporadic nature of sales, will result in increased earnings volatility.

Regulatory changes that affect companies ability to drill, either generally or in a specific location where we have acquired seismic data, could materially adversely affect the value of the seismic data contained in our library. Technology changes could also make existing data sets obsolete. Additionally, each of our individual surveys has a limited book life based on its location and oil and gas companies interest in prospecting for reserves in such location, so a particular survey may be subject to a significant decline in value beyond our initial estimates.

The value of our multi-client data could be significantly adversely affected if any material adverse change occurs in the general prospects for oil and gas exploration, development and production activities.

The cost estimates upon which we base our pre-commitments of funding could be wrong. The result could be losses that have a material adverse effect on our financial condition and results of operations. These pre-commitments of funding are subject to the creditworthiness of our clients. In the event that a client refuses or is unable to pay its commitment, we could incur a substantial loss on that project.

As part of our asset-light strategy, we routinely charter vessels from third-party vendors to acquire seismic data for our multi-client business. As a result, our cost to acquire our multi-client data could significantly increase if vessel charter prices rise materially.

Any reduction in the market value of such data will require us to write down its recorded value, which could have a significant material adverse effect on our results of operations.

Goodwill and intangible assets that we have recorded in connection with our acquisitions are subject to impairment evaluations and, as a result, we could be required to write-off additional goodwill and intangible assets, which may adversely affect our financial condition and results of operations.

In accordance with Accounting Standard Codification (ASC) Topic 350, *Goodwill and Other Intangible Assets* (ASC 350), we are required to compare the fair value of our goodwill and intangible assets (when certain impairment indicators under ASC 350 are present) to their carrying amount. If the fair value of such goodwill or intangible assets is less than its carrying value, an impairment loss is recorded to the extent that the fair value of these assets within the reporting units is less than their carrying value. In 2008, we recorded an impairment charge of $252.2 million related to our goodwill and intangible assets and in 2009 we recorded an impairment charge of $38.0 million related to our intangible assets. Any further reduction in or impairment of the value of our goodwill or other intangible assets will result in additional charges against our earnings, which could have a material adverse effect on our reported results of operations and financial position in future periods. At December 31, 2010, our goodwill and other intangible asset balances were $51.3 million and $20.3 million, respectively.

Due to the international scope of our business activities, our results of operations may be significantly affected by currency fluctuations.

We derive a significant portion of our consolidated net revenues from international sales, subjecting us to risks relating to fluctuations in currency exchange rates. Currency variations can adversely affect margins on sales of our products in countries outside of the United States and margins on sales of products that include

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components obtained from suppliers located outside of the United States. Through our subsidiaries, we operate in a wide variety of jurisdictions, including the United Kingdom, China, Canada, the Netherlands, Brazil, Russia, the United Arab Emirates and other countries. Certain of these countries have experienced economic problems and uncertainties from time to time. To the extent that world events or economic conditions negatively affect our future sales to customers in these and other regions of the world, or the collectability of receivables, our future results of operations, liquidity and financial condition may be adversely affected. We currently require customers in certain higher risk countries to provide their own financing. In some cases, we have assisted our customers in organizing international financing and export-import credit guarantees provided by the United States government. We do not currently extend long-term credit through notes to companies in countries we consider to be too risky from a credit risk perspective.

A majority of our foreign net working capital is within the United Kingdom. The subsidiaries in the United Kingdom and in other countries receive their income and pay their expenses primarily in their local currencies. To the extent that transactions of these subsidiaries are settled in their local currencies, a devaluation of those currencies versus the U.S. dollar could reduce the contribution from these subsidiaries to our consolidated results of operations as reported in U.S. dollars. For financial reporting purposes, such depreciation will negatively affect our reported results of operations since earnings denominated in foreign currencies that are converted to U.S. dollars are stated at a decreased value. In addition, since we participate in competitive bids for sales of certain of our products and services that are denominated in U.S. dollars, a depreciation of the U.S. dollar against other currencies could harm our competitive position relative to other companies. While we have employed economic cash flow and fair value hedges designed to minimize the risks associated with these exchange rate fluctuations, the hedging activities may be ineffective or may not offset more than a portion of the adverse financial impact resulting from currency variations. Accordingly, we cannot assure you that fluctuations in the values of the currencies of countries in which we operate will not materially adversely affect our future results of operations.

As a technology-focused company, we are continually exposed to risks related to complex, highly technical products and services.

Our customers often require demanding specifications for performance and reliability of our products and services. Because many of our products are complex and often use unique advanced components, processes, technologies, and techniques, undetected errors and design and manufacturing flaws may occur. Even though we attempt to assure that our systems are always reliable in the field, the many technical variables related to their operations can cause a combination of factors that can, and have from time to time, caused performance and service issues with certain of our products. Product defects result in higher product service, warranty, and replacement costs and may affect our customer relationships and industry reputation, all of which may adversely impact our results of operations. Despite our testing and quality assurance programs, undetected errors may not be discovered until the product is purchased and used by a customer in a variety of field conditions. If our customers deploy our new products and they do not work correctly, our relationship with our customers may be materially and adversely affected.

As a result of our systems advanced and complex nature, we expect to experience occasional operational issues from time to time. Generally, until our products have been tested in the field under a wide variety of operational conditions, we cannot be certain that performance and service problems will not arise. In that case, market acceptance of our new products could be delayed and our results of operations and financial condition could be adversely affected.

The businesses of our Solutions and Software segments, being more concentrated in software, processing services, and proprietary technologies, have also exposed us to various risks that these technologies typically encounter, including the following:

- future competition from more established companies entering the market;

technology obsolescence;

dependence upon continued growth of the market for seismic data processing;

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the rate of change in the markets for these segments technology and services;

research and development efforts not proving sufficient to keep up with changing market demands;

dependence on third-party software for inclusion in these segments products and services;

misappropriation of these segments technology by other companies;

alleged or actual infringement of intellectual property rights that could result in substantial additional costs;

difficulties inherent in forecasting sales for newly developed technologies or advancements in technologies;

recruiting, training, and retaining technically skilled personnel that could increase the costs for these segments, or limit their growth; and

the ability to maintain traditional margins for certain of their technology or services.

We are exposed to risks relating to the effectiveness of our internal controls.

Following the end of our third quarter of 2009, we discovered an error in revenue recognition of certain product revenues in connection with the delivery of a FireFly land seismic data acquisition system and related hardware and components in China, which we had recorded in revenues for the second quarter of 2009. On November 4, 2009, we announced that we were restating our unaudited consolidated financial statements as of and for the three and six month periods ended June 30, 2009, as a result of this error. We had concluded that, as of June 30, 2009, our internal control over financial reporting was not effective because this error in revenue recognition necessitating the restatement of our second quarter 2009 results of operations constituted a material weakness in our internal control over financial reporting. This material weakness was remediated as of December 31, 2009. A material weakness is a deficiency, or a combination of control deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

In addition, we may in the future identify further material weaknesses or significant deficiencies in our internal control over financial reporting. Although we have remediated the above material weakness, there can be no assurance that such controls will effectively prevent material misstatements in our consolidated financial statements in future periods. In addition, we may in the future identify further material weaknesses or significant deficiencies in our internal control over financial reporting, which could adversely impact the accuracy and timeliness of our future reporting and reports and filings we make with the SEC.

We rely on highly skilled personnel in our businesses, and if we are unable to retain or motivate key personnel or hire qualified personnel, we may not be able to grow effectively.

Our performance is largely dependent on the talents and efforts of highly skilled individuals. Our future success depends on our continuing ability to identify, hire, develop, motivate, and retain skilled personnel for all areas of our organization. We require highly skilled personnel to operate and provide technical services and support for our businesses. Competition for qualified personnel required for our data processing operations and our other segments businesses has intensified in recent years. Our growth has presented challenges to us to recruit, train, and retain our employees while managing the impact of potential wage inflation and the lack of available qualified labor in some markets where we operate. A well-trained, motivated and adequately-staffed work force has a positive impact on our

ability to attract and retain business. Our continued ability to compete effectively depends on our ability to attract new employees and to retain and motivate our existing employees.

If we do not effectively manage our transition into new products and services, our revenues may suffer.

Products and services for the seismic industry are characterized by rapid technological advances in hardware performance, software functionality and features, frequent introduction of new products and services, and improvement in price characteristics relative to product and service performance. Among the risks

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associated with the introduction of new products and services are delays in development or manufacturing, variations in costs, delays in customer purchases or reductions in price of existing products in anticipation of new introductions, write-offs or write-downs of the carrying costs of inventory and raw materials associated with prior generation products, difficulty in predicting customer demand for new product and service offerings and effectively managing inventory levels so that they are in line with anticipated demand, risks associated with customer qualification, evaluation of new products, and the risk that new products may have quality or other defects or may not be supported adequately by application software. The introduction of new products and services by our competitors also may result in delays in customer purchases and difficulty in predicting customer demand. If we do not make an effective transition from existing products and services to future offerings, our revenues and margins may decline.

Furthermore, sales of our new products and services may replace sales, or result in discounting of some of our current product or service offerings, offsetting the benefit of a successful introduction. In addition, it may be difficult to ensure performance of new products and services in accordance with our revenue, margin, and cost estimations and to achieve operational efficiencies embedded in our estimates. Given the competitive nature of the seismic industry, if any of these risks materializes, future demand for our products and services, and our future results of operations, may suffer.

Technological change in the seismic industry requires us to make substantial research and development expenditures.

The markets for our products and services are characterized by changing technology and new product introductions. We must invest substantial capital to develop and maintain a leading edge in technology, with no assurance that we will receive an adequate rate of return on those investments. If we are unable to develop and produce successfully and timely new and enhanced products and services, we will be unable to compete in the future and our business, our results of operations and our financial condition will be materially and adversely affected.

The loss of any significant customer could materially and adversely affect our results of operations and financial condition.

We have traditionally relied on a relatively small number of significant customers. Consequently, our business is exposed to the risks related to customer concentration. No single customer represented 10% or more of our consolidated net revenues for 2010, 2009 and 2008; however, our top five customers in total represented approximately 28%, 29% and 30%, respectively, of our consolidated net revenues during those years. The loss of any of our significant customers or deterioration in our relations with any of them could materially and adversely affect our results of operations and financial condition.

Historically, a relatively small number of customers has accounted for the majority of our net revenues in any period. During the last ten years, our traditional seismic contractor customers have been rapidly consolidating, thereby consolidating the demand for our products and services. The loss of any of our significant customers to further consolidation could materially and adversely affect our results of operations and financial condition.

Certain of our facilities could be damaged by hurricanes and other natural disasters, which could have an adverse effect on our results of operations and financial condition.

Certain of our facilities are located in regions of the United States that are susceptible to damage from hurricanes and other weather events, and, during 2005, were impacted by hurricanes or other weather events. Our Systems segment leases 93,000-square feet of facilities located in Harahan, Louisiana, in the greater New Orleans metropolitan area. In late August 2005, we suspended operations at these facilities and evacuated and locked down the facilities in preparation for Hurricane Katrina. These facilities did not experience flooding or significant damage during or after

the hurricane. However, because of employee evacuations, power failures and lack of related support services, utilities and infrastructure in the New Orleans area, we were unable to resume full operations at the facilities until late September 2005. In September 2008, we lost power and

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related services for several days at our offices located in the Houston metropolitan area and in Harahan, Louisiana as a result of Hurricane Ike and Hurricane Gustav.

Future hurricanes or similar natural disasters that impact our facilities may negatively affect our financial position and operating results for those periods. These negative effects may include reduced production and product sales; costs associated with resuming production; reduced orders for our products from customers that were similarly affected by these events; lost market share; late deliveries; additional costs to purchase materials and supplies from outside suppliers; uninsured property losses; inadequate business interruption insurance and an inability to retain necessary staff. To the extent that climate change increases the severity of hurricanes and other weather events, as some have suggested, it could worsen the severity of these negative effects on our financial position and operating results.

Climate change regulations or legislation could result in increased operating costs and reduced demand for the oil and gas our clients intend to produce.

More stringent regulations and laws relating to climate change and greenhouse gases (GHGs) may be adopted in the future and could reduce the demand for our products and services. On December 15, 2009, the U.S. Environmental Protection Agency (the EPA) officially concluded that atmospheric concentrations of carbon dioxide, methane and certain other GHGs present an endangerment to public health and welfare because such gases are, according to the EPA, contributing to warming of the earth s atmosphere and other climatic changes. Consistent with its findings, the EPA has proposed or adopted various regulations under the Clean Air Act to address GHGs. Among other things, the EPA is limiting emissions of greenhouse gases from new cars and light duty trucks beginning with the 2012 model year. When those mobile source standards took effect on January 2, 2011, GHGs became categorized as regulated air pollutants. This revised status could trigger a variety of other Clean Air Act requirements, including construction and operating permit requirements for industrial plants and other stationary sources.

In response to the Fiscal Year 2008 Consolidated Appropriations Act, the EPA also has published a final rule requiring the reporting of GHG emissions from specified large sources in the United States on an annual basis, beginning in 2011 for emissions occurring after January 1, 2010. In a final rule published on November 30, 2010, the EPA extended those reporting requirements to include onshore oil and natural gas production, processing, transmission, storage, and distribution facilities.

At the same time, the U.S. Congress has been considering a variety of new legislative proposals concerning GHGs. In June 2009, for example, the House of Representatives passed the American Clean Energy and Security Act of 2009, which, if it had been enacted, would have established an economy-wide cap on emissions of GHGs so as to reduce U.S. emissions over time by approximately 80%. As an alternative, some proponents of GHG controls have advocated mandating a national clean energy standard. In 2011, President Obama encouraged Congress to adopt a goal of generating 80% of U.S. electricity from clean energy by 2035 with credit for renewable and nuclear power and partial credit for clean coal and efficient natural gas ; the President also proposed ending tax breaks for the oil industry. Because of the lack of any comprehensive federal legislative program expressly addressing GHGs, there currently is uncertainty as to how and when additional federal regulation of GHGs might take place and as to whether the EPA should continue with its existing regulations in the absence of more specific Congressional direction.

A number of states, individually and regionally, have implemented or are considering their own GHG regulatory programs. These initiatives have included so-called cap-and-trade programs, under which overall GHG emissions are limited and GHG emissions allowances are then allocated and sold, clean energy standards, and other regulatory requirements.

New climate change and related clean energy regulatory initiatives could result in our customers incurring material compliance costs, e.g., by being required to purchase or to surrender allowances for GHGs resulting from their

operations, or adversely affect the marketability of the oil and natural gas that our customers produce. The impact of such future programs cannot be predicted, but we do not expect our operations to be affected any differently than other similarly situated domestic competitors.

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Increased regulation of hydraulic fracturing could result in reductions or delays in drilling and completing new oil and natural gas wells, which could adversely impact our revenues by decreasing the demand for our seismic acquisition services.

Hydraulic fracturing is a process used by oil and gas exploration and production operators in the completion of certain oil and gas wells whereby water, sand and chemicals are injected under pressure into subsurface formations to stimulate gas and, to a lesser extent, oil production. Due to concerns that hydraulic fracturing may adversely affect drinking water supplies, the EPA recently announced a plan to conduct a comprehensive research study to investigate any potential adverse impact that hydraulic fracturing may have on water quality and public health. The initial study results are expected to be available in late 2012. The U.S. Department of the Interior also has announced plans to develop a new policy for hydraulic fracturing on public lands that would require the disclosure of chemicals used in the process. Aside from these federal initiatives, several states have moved to require disclosure of fracturing fluid components or otherwise to regulate their use more closely. In certain areas of the country, new drilling permits for hydraulic fracturing have been put on hold pending development of additional standards. Adoption of legislation or regulations placing restrictions on hydraulic fracturing activities could impose operational delays, increased operating costs and additional regulatory burdens on exploration and production operators, which could reduce their production of natural gas and, in turn, adversely affect our revenues and results of operations by decreasing the demand for our seismic data acquisition services.

We have outsourcing arrangements with third parties to manufacture some of our products. If these third party suppliers fail to deliver quality products or components at reasonable prices on a timely basis, we may alienate some of our customers and our revenues, profitability, and cash flow may decline. Additionally, current global economic conditions could have a negative impact on our suppliers, causing a disruption in our vendor supplies. A disruption in vendor supplies may adversely affect our results of operations.

Our manufacturing processes require a high volume of quality components. We have increased our use of contract manufacturers as an alternative to our own manufacturing of products. We have outsourced the manufacturing of our towed marine streamers, our redeployable ocean bottom cables, our MEMS components, and various components of VectorSeis Ocean. Certain components used by us are currently provided by only one supplier. If, in implementing any outsource initiative, we are unable to identify contract manufacturers willing to contract with us on competitive terms and to devote adequate resources to fulfill their obligations to us or if we do not properly manage these relationships, our existing customer relationships may suffer. In addition, by undertaking these activities, we run the risk that the reputation and competitiveness of our products and services may deteriorate as a result of the reduction of our control over quality and delivery schedules. We also may experience supply interruptions, cost escalations, and competitive disadvantages if our contract manufacturers fail to develop, implement, or maintain manufacturing methods appropriate for our products and customers.

Reliance on certain suppliers, as well as industry supply conditions, generally involves several risks, including the possibility of a shortage or a lack of availability of key components, increases in component costs and reduced control over delivery schedules. If any of these risks are realized, our revenues, profitability, and cash flows may decline. In addition, as we come to rely more heavily on contract manufacturers, we may have fewer personnel resources with expertise to manage problems that may arise from these third-party arrangements.

Additionally, our suppliers could be negatively impacted by current global economic conditions. If certain of our suppliers were to experience significant cash flow issues or become insolvent as a result of such conditions, it could result in a reduction or interruption in supplies to us or a significant increase in the price of such supplies and adversely impact our results of operations and cash flows.

Under some of our outsourcing arrangements, our manufacturing outsourcers purchase agreed-upon inventory levels to meet our forecasted demand. Our manufacturing plans and inventory levels are generally based on sales forecasts. If demand proves to be less than we originally forecasted and we cancel our

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committed purchase orders, our outsourcers generally will have the right to require us to purchase inventory which they had purchased on our behalf. Should we be required to purchase inventory under these terms, we may be required to hold inventory that we may never utilize.

Our operations, and the operations of our customers, are subject to numerous government regulations, which could adversely limit our operating flexibility.

Our operations are subject to laws, regulations, government policies, and product certification requirements worldwide. Changes in such laws, regulations, policies or requirements could affect the demand for our products or result in the need to modify products, which may involve substantial costs or delays in sales and could have an adverse effect on our future operating results. Our export activities are also subject to extensive and evolving trade regulations. Certain countries are subject to restrictions, sanctions, and embargoes imposed by the United States government. These restrictions, sanctions, and embargoes also prohibit or limit us from participating in certain business activities in those countries. Our operations are subject to numerous local, state, and federal laws and regulations in the United States and in foreign jurisdictions concerning the containment and disposal of hazardous materials, the remediation of contaminated properties, and the protection of the environment. These laws have been changed frequently in the past, and there can be no assurance that future changes will not have a material adverse effect on us. In addition, our customers operations are also significantly impacted by laws and regulations concerning the protection of the environment and endangered species. Consequently, changes in governmental regulations applicable to our customers may reduce demand for our products and services. To the extent that our customers operations are disrupted by future laws and regulations, our business and results of operations may be materially and adversely affected.

Our certificate of incorporation and bylaws, Delaware law, our stockholders rights plan, the terms of our Series D Preferred Stock and contractual requirements under our agreements with Fletcher and BGP contain provisions that could discourage another company from acquiring us.

Provisions of our certificate of incorporation and bylaws, Delaware law, our stockholders rights plan, the terms of our Series D Preferred Stock, our agreement with Fletcher and our investor rights agreement with BGP may discourage, delay or prevent a merger or acquisition that our stockholders may consider favorable, including transactions in which you might otherwise receive a premium for shares of our common stock. These provisions include:

- authorizing the issuance of blank check preferred stock without any need for action by stockholders;
- providing for a dividend on our common stock, commonly referred to as a poison pill, which can be triggered after a person or group acquires, obtains the right to acquire or commences a tender or exchange offer to acquire, 20% or more of our outstanding common stock;
- providing for a classified board of directors with staggered terms;
- requiring supermajority stockholder voting to effect certain amendments to our certificate of incorporation and by-laws;
- eliminating the ability of stockholders to call special meetings of stockholders;
- prohibiting stockholder action by written consent;
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings; and

requiring an acquiring party to assume all of our obligations under our agreement with Fletcher and the terms of the Series D Preferred Stock set forth in our certificates of rights and designations for those series, including the dividend, liquidation, conversion, voting and share registration provisions.

In addition, the terms of our INOVA Geophysical joint venture with BGP and BGP s investment in our company contain a number of provisions, such as certain pre-emptive rights granted to BGP with respect to

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certain future issuances of our stock, that could have the effect of discouraging, delaying or preventing a merger or acquisition of our company that our stockholders may otherwise consider to be favorable.

Note: **The foregoing factors pursuant to the Private Securities Litigation Reform Act of 1995 should not be construed as exhaustive. In addition to the foregoing, we wish to refer readers to other factors discussed elsewhere in this report as well as other filings and reports with the SEC for a further discussion of risks and uncertainties that could cause actual results to differ materially from those contained in forward-looking statements. We undertake no obligation to publicly release the result of any revisions to any such forward-looking statements, which may be made to reflect the events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.**

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

Our principal operating facilities at December 31, 2010 were as follows:

Operating Facilities	Square Footage	Segment
Houston, Texas	116,000	Global Headquarters and Solutions
Harahan, Louisiana	93,000	Systems
Lacombe, Louisiana	87,000	Systems
Stafford, Texas	41,000	Systems
Jebel Ali, Dubai, United Arab Emirates	33,000	International Sales Headquarters and Systems
Denver, Colorado	29,000	Solutions
Voorschoten, The Netherlands	29,000	Systems
Edinburgh, Scotland	9,000	Software
Calgary, Canada	5,000	Solutions
	442,000	

Each of these operating facilities is leased by us under a long-term lease agreement. These lease agreements have terms that expire ranging from 2011 to 2017. See Note 17 of *Notes to Consolidated Financial Statements.*

In addition, we lease offices in Cranleigh and Norwich, England; Aberdeen, Scotland; Calgary, Canada; Beijing, China; and Moscow, Russia to support our global sales force. We also lease offices for our seismic data processing centers in Egham, England; Port Harcourt, Nigeria; Luanda, Angola; Moscow, Russia; Cairo, Egypt; Villahermosa, Mexico; and in Port of Spain, Trinidad. Our executive headquarters (utilizing approximately 23,100 square feet) is located at 2105 CityWest Boulevard, Suite 400, Houston, Texas. The machinery, equipment, buildings, and other facilities owned and leased by us are considered by our management to be sufficiently maintained and adequate for our current operations.

Item 3. ***Legal Proceedings***

WesternGeco

On June 12, 2009, WesternGeco L.L.C. (WesternGeco) filed a lawsuit against us in the United States District Court for the Southern District of Texas, Houston Division. In the lawsuit, styled *WesternGeco L.L.C. v. ION Geophysical Corporation*, WesternGeco alleges that we have infringed several United States patents regarding marine seismic streamer steering devices that are owned by WesternGeco. WesternGeco is seeking unspecified monetary damages and an injunction prohibiting us from making, using, selling, offering for sale or supplying any infringing products in the United States. Based on our review of the lawsuit filed by WesternGeco and the WesternGeco patents at issue, we believe that our products do not infringe any WesternGeco patents, that the claims asserted against us by WesternGeco are without merit and that the

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ultimate outcome of the claims will not result in a material adverse effect on our financial condition or results of operations. We intend to defend the claims against us vigorously.

On June 16, 2009, we filed an answer and counterclaims against WesternGeco, in which we deny that we have infringed WesternGeco s patents and assert that the WesternGeco patents are invalid or unenforceable. We also asserted that WesternGeco s Q-Marine system, components and technology infringe upon our United States patent related to marine seismic streamer steering devices. We also assert that WesternGeco tortiously interfered with our relationship with our customers. In addition, we are claiming that the lawsuit by WesternGeco is an illegal attempt by WesternGeco to control and restrict competition in the market for marine seismic surveys performed using laterally steerable streamers. We are requesting various remedies and relief, including a declaration that the WesternGeco patents are invalid or unenforceable, an injunction prohibiting WesternGeco from making, using, selling, offering for sale or supplying any infringing products in the United States, a declaration that the WesternGeco patents should be co-owned by us, and an award of unspecified monetary damages.

In June 2010, WesternGeco filed a lawsuit against various subsidiaries and affiliates of Fugro N.V. (Fugro), a seismic contractor customer of the Company, accusing the defendants of infringing the same United States patents regarding marine seismic streamer steering devices by planning to use certain equipment purchased from us on a survey located outside of U.S. territorial waters. The court approved the consolidation of the Fugro case with our case. The defendants in the Fugro case have filed a motion to dismiss the lawsuit.

Fletcher

We are or have been involved in two lawsuits filed in Delaware involving Fletcher International, Ltd. (Fletcher), the holder of shares of our Series D Preferred Stock.

Under our February 2005 agreement with Fletcher, the aggregate number of shares of common stock issued or issuable to Fletcher upon conversion of the Series D Preferred Stock could not exceed a designated maximum number of shares (the Maximum Number), and such Maximum Number could be increased by Fletcher providing us with a 65-day notice of increase. In November 2008, Fletcher exercised its right to increase the Maximum Number from 7,669,434 shares to 9,669,434 shares. On September 15, 2009, Fletcher delivered a second notice to us, intending to increase the Maximum Number of shares of common stock issuable upon conversion of our Series D Preferred Stock from 9,669,434 shares to 11,669,434 shares. Our interpretation of the agreement with Fletcher was that Fletcher had the right to issue only one notice to increase the Maximum Number (which Fletcher had exercised in November 2008). On November 6, 2009, we filed an action in the Court of Chancery of the State of Delaware, styled *ION Geophysical Corporation v. Fletcher International, Ltd.,* seeking a declaration that, under the agreement, Fletcher was permitted to deliver only one notice to increase the Maximum Number and that its second notice was legally invalid. Fletcher filed an answer and counterclaim, seeking specific performance and reimbursement and indemnification for its costs and expenses that it claimed it was entitled to under the 2005 agreement. On November 5, 2010, the Court of Chancery issued its opinion in the matter, and held that Fletcher was entitled to deliver multiple notices to increase the Maximum Number of shares of common stock (but not beyond a total of 15,724,306 shares). The Court also ruled that we are not required to indemnify Fletcher for its fees, costs and expenses incurred in connection with the proceedings. On November 8, 2010, Fletcher sent us a notice to increase the Maximum Number of shares to 15,724,306 shares, effective January 12, 2011. Currently, Fletcher s remaining outstanding shares of Series D Preferred Stock are convertible into up to 6,065,075 shares of our common stock.

On November 25, 2009, Fletcher filed a lawsuit against us and certain of our directors in the Delaware Court of Chancery. In the lawsuit, styled *Fletcher International, Ltd. v. ION Geophysical Corporation, f/k/a Input/Output, Inc., ION International S.à r.l., James M. Lapeyre, Bruce S. Appelbaum, Theodore H. Elliott, Jr., Franklin Myers, S. James Nelson, Jr., Robert P. Peebler, John Seitz, G. Thomas Marsh And Nicholas G. Vlahakis,* Fletcher alleged, among other

things, that we violated Fletcher s consent rights contained in the Series D Preferred Stock Certificates of Designation, by having ION Sàrl, an indirect wholly-owned subsidiary of ION Geophysical Corporation, issuing a convertible promissory note to the Bank of China in connection with the Bank of China bridge loan funded on October 27, 2009, and that the directors violated their fiduciary

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duty to the company by allowing ION Sàrl to issue the convertible note without Fletcher s consent. Fletcher sought a court order requiring ION Sàrl to repay the $10 million advanced to ION Sàrl under the bridge loan and unspecified monetary damages. On March 24, 2010, the presiding judge in the case denied Fletcher s request for the court order. In a Memorandum Opinion issued on May 28, 2010 in response to a motion for partial summary judgment, the judge dismissed all of Fletcher s claims against our named directors but also concluded that, because the bridge loan note issued by ION Sàrl was convertible into ION common stock, Fletcher had the right to consent to the issuance of the note and that we violated Fletcher s consent right by ION Sàrl issuing the note without Fletcher s consent. In December 2010, the presiding judge in the case recused himself from the case without explanation and a new presiding judge was appointed to the case. The holder of the convertible note issued by ION Sàrl never exercised its right to convert the note, and the note was paid in full in March 2010. We believe that the remaining claims asserted by Fletcher in the lawsuit are without merit. We further believe that the monetary damages suffered by Fletcher as a result of ION Sàrl issuing the bridge loan note without Fletcher s consent are nonexistent or nominal, and that the ultimate outcome of the lawsuit will not result in a material adverse effect on our financial condition or results of operations. We intend to defend the remaining claims against us in this lawsuit vigorously.

Greatbatch

In 2002, we filed a lawsuit against operating subsidiaries of battery manufacturer Greatbatch, Inc., including its Electrochem division (collectively Greatbatch), in the 24th Judicial District Court for the Parish of Jefferson in the State of Louisiana. In the lawsuit, styled *Input/Output, Inc. and I/O Marine Systems, Inc. v. Wilson Greatbatch Technologies, Inc., Wilson Greatbatch, Ltd. d/b/a Electrochem Lithium Batteries, and WGL Intermediate Holdings, Inc., Civil Action No. 578-881, Division A* , we alleged that Greatbatch had fraudulently misappropriated our product designs and other trade secrets related to the batteries and battery pack used in our DigiBIRD® marine towed streamer vertical control device and used our confidential information to manufacture and market competing batteries and battery packs. After a trial, on October 1, 2009 the jury concluded that Greatbatch had committed fraud, violated the Louisiana Unfair Trade Practices Act and breached a trust and nondisclosure agreement between us and Greatbatch, and awarded us $21.7 million in compensatory damages. A judgment was entered consistent with the jury verdict. In December 2010, we and Greatbatch settled the lawsuit, pursuant to which Greatbatch paid us $25.0 million in full satisfaction of the judgment. Upon the cash receipt, we recorded a gain on legal settlement of $24.5 million, net of fees paid to attorneys.

Sercel

On January 29, 2010, the jury in a patent infringement lawsuit filed by us against seismic equipment provider Sercel, Inc. in the United States District Court for the Eastern District of Texas returned a verdict in our favor. In the lawsuit, styled *Input/Output, Inc. et al v. Sercel, Inc., (5-06-cv-00236)*, we alleged that Sercel s 408, 428 and SeaRay digital seismic sensor units infringe our United States Patent No. 5,852,242, which is incorporated in our VectorSeis sensor technology. Products that use our VectorSeis technology include the System Four, Scorpion, FireFly, and VectorSeis Ocean seismic acquisition systems. After a two-week trial, the jury concluded that Sercel infringed our patent and that our patent was valid, and the jury awarded us $25.2 million in compensatory past damages. In response to post-verdict motions made the parties, on September 16, 2010 the presiding judge issued a series of rulings that (a) granted our motion for a permanent injunction to be issued prohibiting the manufacture, use or sale of the infringing Sercel products, (b) confirmed that our patent was valid, (c) confirmed that the jury s finding of infringement was supported by the evidence and (d) disallowed $5.4 million of lost profits that were based on infringing products that were manufactured and delivered by Sercel outside of the U.S., but were offered for sale by Sercel in the U.S. and involved underlying orders and payments received by Sercel in the U.S. In addition, the judge concluded that the evidence supporting the jury s finding that we are entitled to be awarded $9.0 million in lost profits associated with certain infringing pre-verdict marine sales by Sercel was too speculative and therefore disallowed that award of lost profits. As a result of the judge s ruling, we are now entitled to be awarded an additional amount of damages equal to a

reasonable royalty on the infringing pre-verdict Sercel marine sales. After learning that Sercel continued to make sales of infringing products after the January 2010 jury verdict was rendered, we

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filed motions with the court to seek additional compensatory damages for the post-verdict infringing sales and enhanced damages as a result of the willful nature of Sercel s post-verdict infringement. On February 16, 2011, the Court entered a final judgment and permanent injunction in the case. The final judgment awarded us $10.7 million in damages, plus interest, and the permanent injunction prohibits Sercel and parties acting in concert with Sercel from making, using, offering to sell, selling, or importing in the United States (which includes territorial waters of the United States) Sercel s 408UL, 428XL and SeaRay digital sensor units, and all other products that are only colorably different from those products. The Court ordered that the additional damages to be paid by Sercel as a reasonable royalty on the infringing pre-verdict Sercel marine sales and the additional damages to be paid by Sercel resulting from post-verdict infringing sales be determined in a separate future proceeding. We have not recorded any amounts related to this gain contingency as of December 31, 2010.

Other

We have been named in various other lawsuits or threatened actions that are incidental to our ordinary business. Litigation is inherently unpredictable. Any claims against us, whether meritorious or not, could be time consuming, cause us to incur costs and expenses, require significant amounts of management time and result in the diversion of significant operational resources. The results of these lawsuits and actions cannot be predicted with certainty. We currently believe that the ultimate resolution of these matters will not have a material adverse impact on our financial condition, results of operations or liquidity.

Item 4. ***(Removed and Reserved)***

PART II

Item 5. ***Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

Our common stock trades on the New York Stock Exchange (NYSE) under the symbol IO. The following table sets forth the high and low sales prices of the common stock for the periods indicated, as reported in NYSE composite tape transactions.

	Price Range	
Period	**High**	**Low**
Year ended December 31, 2010:		
Fourth Quarter	$ 8.71	$ 4.71
Third Quarter	5.14	3.42
Second Quarter	6.35	3.48
First Quarter	6.90	4.26
Year ended December 31, 2009:		
Fourth Quarter	$ 6.56	$ 3.07
Third Quarter	3.76	1.88
Second Quarter	3.51	1.53
First Quarter	4.60	0.83

We have not historically paid, and do not intend to pay in the foreseeable future, cash dividends on our common stock. We presently intend to retain cash from operations for use in our business, with any future decision to pay cash dividends on our common stock dependent upon our growth, profitability, financial condition and other factors our

board of directors consider relevant. In addition, the terms of our credit facility prohibit us from paying dividends on or repurchasing shares of our common stock without the prior consent of the lenders.

The terms of our credit facility also contain covenants that restrict us, subject to certain exceptions, from (i) paying cash dividends on our common stock and (ii) repurchasing and acquiring shares of our common

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stock unless there is no event of default under our credit agreement and the amount of such repurchases in any year does not exceed an amount equal to (A) 25% of our consolidated net income for the prior fiscal year, less (B) the amount of any permitted cash dividends paid on our common stock during such year.

On December 31, 2010, there were 502 holders of record of our common stock.

During the three months ended December 31, 2010, we withheld and subsequently cancelled shares of our common stock to satisfy minimum statutory income tax withholding obligations on the vesting of restricted stock for employees. The date of cancellation, number of shares and average effective acquisition price per share, were as follows:

Period	(a) Total Number of Shares Acquired	(b) Average Price Paid Per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Program	(d) Maximum Number (or Approximate Dollar Value) of Shares That May Yet Be Purchased Under the Plans or Program
October 1, 2010 to October 31, 2010			Not applicable	Not applicable
November 1, 2010 to November 30, 2010			Not applicable	Not applicable
December 1, 2010 to December 31, 2010	57,262	$ 7.66	Not applicable	Not applicable
Total	57,262	$ 7.66		

Item 6. ***Selected Financial Data***

The selected consolidated financial data set forth below with respect to our consolidated statements of operations for 2010, 2009, 2008, 2007 and 2006, and with respect to our consolidated balance sheets at December 31, 2010, 2009, 2008, 2007 and 2006 have been derived from our audited consolidated financial statements.

Our results of operations and financial condition have been affected by acquisitions and dispositions, debt refinancings and impairments of assets during the periods presented, which affect the comparability of the financial information shown. In particular, our results of operations for 2010, 2009 and 2008 were impacted by the following items:

The loss on disposition of our land division in 2010 totaling $38.1 million;

The equity in losses of INOVA Geophysical in 2010 totaling $23.7 million;

The gain on a legal settlement in 2010 totaling $24.5 million;

The fair value adjustments of the warrant in 2010 and 2009 totaling $12.8 million and ($29.4) million, respectively;

The write-off of deferred financing charges, including amortization of non-cash debt discounts, totaling $18.8 million and $6.7 million, in 2010 and 2009, respectively;

The impairment of our goodwill and intangible assets in 2009 and 2008 totaling $38.0 million and $252.3 million, respectively; and

The beneficial conversion charge of $68.8 million associated with our outstanding convertible preferred stock for 2008.

This information should not be considered as being indicative of future operations, and should be read in conjunction with Item 7. *Management s Discussion and Analysis of Financial Condition and Results of Operations* and the consolidated financial statements and the notes thereto included elsewhere in this Form 10-K.

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	Years Ended December 31,				
	2010	2009	2008	2007	2006
	(In thousands, except for per share data)				
Statement of Operations Data:					
Product revenues	$ 165,202	$ 237,664	$ 417,511	$ 537,691	$ 354,258
Service revenues	279,120	182,117	262,012	175,420	149,298
Net revenues	444,322	419,781	679,523	713,111	503,556
Cost of products	94,658	165,923	289,795	386,849	252,647
Cost of services	183,931	121,720	181,980	119,679	91,592
Gross profit	165,733	132,138	207,748	206,583	159,317
Operating expenses:					
Research, development and engineering	25,227	44,855	49,541	49,965	37,853
Marketing and sales	30,405	34,945	47,854	43,877	40,651
General and administrative	57,254	72,510	70,893	48,847	40,865
Impairment of goodwill and intangible assets		38,044	252,283		
Total operating expenses	112,886	190,354	420,571	142,689	119,369
Income (loss) from operations	52,847	(58,216)	(212,823)	63,894	39,948
Interest expense, net	(30,770)	(33,950)	(11,284)	(4,435)	(3,730)
Loss on disposition of land division	(38,115)				
Fair value adjustment of warrant	12,788	(29,401)			
Equity in losses of INOVA Geophysical	(23,724)				
Gain on legal settlement	24,500				
Impairment of cost method investments	(7,650)	(4,454)			
Other income (expense)	228	(4,023)	4,200	(3,992)	(2,161)
Income (loss) before income taxes and change in accounting principle	(9,896)	(130,044)	(219,907)	55,467	34,057
Income tax expense (benefit)	26,942	(19,985)	1,131	12,823	5,114
Net income (loss) before change in accounting principle	(36,838)	(110,059)	(221,038)	42,644	28,943
Cumulative effect of change in accounting principle					398
Net income (loss)	(36,838)	(110,059)	(221,038)	42,644	29,341
Preferred stock dividends and accretion	1,936	3,500	3,889	2,388	2,429
Preferred stock beneficial conversion charge			68,786		
	$ (38,774)	$ (113,559)	$ (293,713)	$ 40,256	$ 26,912

Net income (loss) applicable to common shares					
Net income (loss) per basic share before change in accounting principle	$ (0.27)	$ (1.03)	$ (3.06)	$ 0.49	$ 0.33
Cumulative effect of change in accounting principle					0.01
Net income (loss) per basic share	$ (0.27)	$ (1.03)	$ (3.06)	$ 0.49	$ 0.34
Net income (loss) per diluted share before change in accounting principle	$ (0.27)	$ (1.03)	$ (3.06)	$ 0.45	$ 0.32
Cumulative effect of change in accounting principle					0.01
Net income (loss) per diluted share	$ (0.27)	$ (1.03)	$ (3.06)	$ 0.45	$ 0.33
Weighted average number of common shares outstanding	144,278	110,516	95,887	81,941	79,497
Weighted average number of diluted shares outstanding	144,278	110,516	95,887	97,321	95,182

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	Years Ended December 31,				
	2010	2009	2008	2007	2006
	(In thousands, except for per share data)				
Balance Sheet Data (end of year):					
Working capital(1)	$ 179,266	$ (59,018)	$ 267,155	$ 220,522	$ 170,342
Total assets	624,442	748,186	861,431	709,149	655,136
Notes payable and long-term debt	108,660	277,381	291,909	24,713	77,540
Stockholders equity	380,447	282,468	325,070	476,240	369,668
Other Data:					
Capital expenditures	$ 7,372	$ 2,966	$ 17,539	$ 11,375	$ 13,704
Investment in multi-client library	64,426	89,635	110,362	64,279	39,087
Depreciation and amortization (other than multi-client library)	24,795	47,911	33,052	26,767	22,036
Amortization of multi-client library	85,940	48,449	80,532	37,662	25,011

(1) The negative working capital amount shown above as of December 31, 2009 was the result of the re-classification of the majority of our then outstanding long-term debt as current and as a result of the fair value of a warrant associated with our prior bridge financing arrangements.

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

Note: The following should be read in conjunction with our Consolidated Financial Statements and related Notes to Consolidated Financial Statements that appear elsewhere in this Annual Report on Form 10-K. References to Notes in the discussion below refer to the numbered Notes to Consolidated Financial Statements.

Executive Summary

Our Business

We are a leading provider of geophysical technology, services, and solutions for the global oil and gas industry, offering advanced acquisition equipment, software and planning and seismic processing services to the global energy industry. Our product and service offerings allow exploration and production (E&P) operators to obtain higher resolution images of the subsurface to reduce the risk of exploration and reservoir development, and to enable seismic contractors to acquire geophysical data more efficiently.

We serve customers in all major energy producing regions of the world from strategically located offices in 19 cities on five continents. In March 2010, we contributed most of our land seismic equipment business to a joint venture we formed with BGP Inc., China National Petroleum Corporation (BGP), a wholly-owned oil field service subsidiary of China National Petroleum Corporation (CNPC). The resulting joint venture company, organized under the laws of the People s Republic of China, is named INOVA Geophysical Equipment Limited (INOVA Geophysical). We believe that this joint venture will provide us the opportunity to further extend the geographic scope of our business through the sales and service facilities of BGP, especially in Africa, the Middle East, China and Southeast Asia.

Our products and services include the following:

Land seismic data acquisition equipment (principally through our 49% ownership in INOVA Geophysical),

Marine seismic data acquisition equipment,

Navigation, command & control and data management software products,

Planning services for survey design and optimization,

Seismic data processing and reservoir imaging services, and

Seismic data libraries.

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We operate our company through four business segments: Systems, Software, Solutions and our INOVA Geophysical joint venture.

Systems towed streamer and redeployable ocean bottom cable seismic data acquisition systems and shipboard recorders, streamer positioning and control systems and energy sources (such as air guns and air gun controllers) and analog geophone sensors.

Software software systems and related services for navigation and data management involving towed marine streamer and seabed operations.

Solutions advanced seismic data processing services for marine and land environments, seismic data libraries, and Integrated Seismic Solutions (ISS) services.

INOVA Geophysical cable-based, cableless and radio-controlled seismic data acquisition systems, digital sensors, vibroseis vehicles (i.e. vibrator trucks) and source controllers for detonator and energy sources business lines.

Economic Conditions

Demand for our products and services is cyclical and substantially dependent upon activity levels in the oil and gas industry, particularly our customers willingness and ability to expend their capital for oil and natural gas exploration and development projects. This demand is highly sensitive to current and expected future oil and natural gas prices. The volatility of oil and natural gas prices in recent years had resulted in sharply curtailed demand for oil and gas exploration activities in North America and other regions. Oil prices increased to record levels during the second quarter of 2008, but, in conjunction with the global recession, sharply declined, falling to approximately $35 per barrel during early 2009. Since then, crude oil prices have recovered to within a range of approximately $85 to $100 per barrel by early 2011. Natural gas prices followed a similar, recession-induced downturn. After peaking at $13.31 MMBtu in July 2008, Henry Hub natural gas prices fell by more than 50%. Unlike the recovery in oil prices, U.S. natural gas prices have remained depressed due to the excess supply of natural gas in the North American market.

Our seismic contractor customers and the E&P companies that are users of our products, services and technology generally reduced their capital spending levels in 2009 and 2010. Additionally, with the overall market decline, the market focus shifted from the acquisition of new seismic data to utilizing and reprocessing previously acquired seismic data. However, we saw increased levels of capital spending related to E&P activity during the second half of 2010. The number of rigs drilling for oil in North America is approaching record levels with U.S. rig counts increasing by approximately 600 year over year. Over the past decade, a majority of all new oil and gas reserves discovered worldwide were located offshore and we believe that offshore E&P activity will continue to grow in an effort to meet global energy demands. Meanwhile, interest in oil shale opportunities is increasing and developments in the technology to locate and extract oil shale reserves are progressing. Almost 60% of new U.S. onshore natural gas production is now coming from the shale gas plays which exhibit first year decline rates of 65% to 85%. We expect that exploration and production expenditures will continue to recover to the extent E&P companies and seismic contractors continue to see recovery in activity levels related to their business. The land seismic equipment business, particularly INOVA Geophysical s business in North America and Russia, continues to experience softness. However, our other businesses delivered positive results in 2010, particularly in the third and fourth quarters, and we anticipate that this improvement will continue into 2011. During the fourth quarter, we experienced a significant increase in sales from our data libraries from a diverse range of geographic regions, including East and West Africa, Brazil and the Arctic regions, primarily due to increased capital expenditures by our E&P customers. New venture revenues also improved year over year, primarily related to the completion of the acquisition phase of our projects in the Arctic

region during our third quarter. Our data processing and software businesses (with the software business revenues expressed in terms of its local currency, British pounds sterling) generated record levels of revenues in 2009 and again in 2010. Also, the marine side of our systems business delivered 2010 revenues consistent with the prior year primarily due to sales of towed streamer products to BGP and other customers.

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We are seeing improvements in demand and believe that our industry s long-term prospects remain favorable because of the decreasing number of new discoveries of significant oil and gas reserves. We believe that technologies that add a competitive advantage through cost reductions or improvements in productivity will continue to be valued in our marketplace. We expect that our new technologies such as DigiFIN™ and Orca®, and INOVA Geophysical s FireFly® will continue to attract interest from our customers because those technologies are designed to deliver improvements in image quality within more productive delivery systems.

In October 2010, the Minerals Management Service (now known as the Bureau of Ocean Energy Management, Regulation and Enforcement, or BOEMRE) of the U.S. Department of the Interior announced the end of the six-month moratorium on certain drilling activities in the U.S. Gulf of Mexico. The six-month moratorium was the result of the Deepwater Horizon drilling rig explosion and fire in April 2010, which resulted in the release of millions of gallons of hydrocarbons into the Gulf of Mexico. The BOEMRE has issued new safety and environmental guidelines and regulations for offshore operations, is expected to issue new safety or environmental guidelines or regulations for offshore drilling, and may take further steps that could increase the costs of exploration and production or reduce the area of operations and result in permitting delays. The permitting process for exploration and development activities in the U.S. Gulf of Mexico has slowed considerably, resulting in very limited levels of activity there. These new safety and environmental regulations will expose our customers, and could expose us, to significant additional costs and liabilities.

Although it is difficult to predict the ultimate impact of the slowdown in exploration and development activities in the U.S. Gulf of Mexico or the new safety and environmental guidelines and regulations, a prolonged suspension of drilling activity in the Gulf of Mexico and other areas and increased liability for companies operating in this sector could adversely affect many of our customers who operate in the Gulf of Mexico. This could, in turn, adversely affect our business, results of operations and financial condition, particularly regarding sales of our marine seismic equipment and Solutions seismic survey and data processing activities covering locations in the Gulf of Mexico. While seismic data processing activity in our Solutions segment has continued to remain strong during 2010, we cannot currently predict whether these events will adversely affect our future data processing services business, and if so, the extent and length of time that any such adverse impact will be felt.

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Key Financial Metrics

The following table provides an overview of key financial metrics for our company as a whole and our four business segments during the twelve months ended December 31, 2010, compared to those for 2009 and 2008 (in thousands, except per share amounts):

	Years Ended December 31,		
	2010	**2009**	**2008**
Net revenues:			
Systems:			
Towed Streamer	$ 83,567	$ 83,398	$ 123,785
Ocean Bottom	1,876	4,948	42,483
Other	28,783	39,943	72,657
Total	$ 114,226	$ 128,289	$ 238,925
Software:			
Software Systems	$ 34,465	$ 31,601	$ 34,308
Services	2,166	2,132	2,932
Total	$ 36,631	$ 33,733	$ 37,240
Solutions:			
Data Processing	$ 107,997	$ 82,330	$ 59,550
New Venture	81,293	71,135	116,706
Data Library	87,664	26,520	82,824
Total	$ 276,954	$ 179,985	$ 259,080
Legacy Land Systems (INOVA)	$ 16,511	$ 77,774	$ 144,278
Total	$ 444,322	$ 419,781	$ 679,523
Gross profit:			
Systems	$ 48,557	$ 52,934	$ 90,795
Software	24,356	21,998	24,656
Solutions	93,804	59,844	78,245
Legacy Land Systems (INOVA)	(984)	(2,638)	14,048
Total	$ 165,733	$ 132,138	$ 207,744
Gross margin:			
Systems	43%	41%	38%
Software	66%	65%	66%
Solutions	34%	33%	30%
Legacy Land Systems (INOVA)	(6)%	(3)%	10%

Total	37%	31%	31%
Income (loss) from operations:			
Systems	$ 27,749	$ 31,209	$ 62,157
Software	21,936	19,970	22,298
Solutions	60,632	27,746	40,534
Legacy Land Systems (INOVA)	(9,623)	(40,881)	(23,430)
Corporate and other	(47,847)	(58,216)	(62,099)
Impairment of goodwill and intangible assets		(38,044)	(252,283)
Total	$ 52,847	$ (58,216)	$ (212,823)
Net income (loss) applicable to common shares	$ (38,774)	$ (113,559)	$ (293,713)
Basic net income (loss) per common share	$ (0.27)	$ (1.03)	$ (3.06)
Diluted net income per (loss) common share	$ (0.27)	$ (1.03)	$ (3.06)

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We intend that the following discussion of our financial condition and results of operations will provide information that will assist in understanding our consolidated financial statements, the changes in certain key items in those financial statements from year to year, and the primary factors that accounted for those changes. Our results of operations for 2010 have been materially affected by the disposition of our land businesses in forming INOVA Geophysical on March 25, 2010, which affects the comparability of certain of the financial information contained in this Form 10-K. In order to assist with the comparability to our historical results of operations, certain of the financial tables and discussion below exclude the results of operations of our disposed legacy land equipment segment (which we refer to below as our Legacy Land Systems segment).

We account for our 49% interest in INOVA Geophysical as an equity method investment and record our share of earnings of INOVA Geophysical on a one fiscal quarter lag basis. Thus, for 2010, we recognized our share of losses in INOVA Geophysical of approximately $23.7 million which represents joint venture activity for the period from March 26, 2010 through September 30, 2010.

We expect to file an amendment to this Annual Report on Form 10-K on Form 10-K/A within six months after December 31, 2010 in order to file separate consolidated financial statements for INOVA Geophysical for the fiscal year ended December 31, 2010, as required under SEC Regulation S-X.

For a discussion of factors that could impact our future operating results and financial condition, see Item 1A. *Risk Factors* above.

Results of Operations

Year Ended December 31, 2010 Compared to Year Ended December 31, 2009

	Year Ended December 31, 2010		Year Ended December 31, 2009	
	As Reported	As Adjusted*	As Reported	As Adjusted*
	(In thousands)			
Net revenues	$ 444,322	$ 427,811	$ 419,781	$ 342,007
Cost of sales	278,589	261,094	287,643	207,231
Gross profit	165,733	166,717	132,138	134,776
Gross margin	37%	39%	31%	39%
Operating expenses:				
Research, development and engineering	25,227	21,046	44,855	23,496
Marketing and sales	30,405	28,846	34,945	29,363
General and administrative	57,254	54,355	72,510	61,208
Impairment of intangible assets			38,044	
Total operating expenses	112,886	104,247	190,354	114,067
Income (loss) from operations	$ 52,847	$ 62,470	$ (58,216)	$ 20,709

* Excluding Legacy Land Systems (INOVA).

Our overall total net revenues of $444.3 million for 2010 increased $24.5 million, or 6%, compared to total net revenues for 2009. Excluding Legacy Land Systems (INOVA), total net revenues increased $85.8 million, or 25%, for the same comparative period. Our overall gross profit percentage for 2010 was 39%, as adjusted, comparable to 2009, as adjusted. Total operating expenses as a percentage of net revenues for 2010 and 2009 were, respectively, 24% and 33%, as adjusted. During 2010, we recorded income from operations of $62.5 million, as adjusted, compared to $20.7 million, as adjusted, during 2009.

Net Revenues, Gross Profits and Gross Margins (excluding Legacy Land Systems)

Systems Net revenues for 2010 decreased by $14.1 million to $114.2 million, compared to $128.3 million for 2009. This decrease was driven primarily by lower geophone string sales as a result of continued

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softness in land seismic activity. Gross profit for 2010 decreased by $4.3 million to $48.6 million, representing a 43% gross margin, compared to $52.9 million, representing a 41% gross margin, for 2009. The increase in gross margins in our Systems segment was primarily due to changes in product mix, with greater sales of marine towed streamer products, which have generally experienced higher margins compared to our other Systems products.

Software Net revenues for 2010 increased by $2.9 million, or 9%, to $36.6 million, compared to $33.7 million for 2009. The increase was primarily due to the continued increased demand for our Orca software systems products. The increase in U.S. Dollars was partially offset by the effect of foreign currency exchange rate fluctuations. Expressed in British pounds sterling (the local currency), net revenues increased by £2.3 million, or 11%. Gross profit increased by $2.4 million to $24.4 million compared to $22.0 million for 2009, while gross margins of 66% remained fairly consistent with prior year margins.

Solutions Net revenues for 2010 increased by $97.0 million, to $277.0 million, compared to $180.0 million for 2009. This increase was primarily due to greater seismic data library sales, particularly during the fourth quarter of 2010, driven by higher capital expenditures from our E&P customers. This increase in data library sales was from many regions across the world, including East and West Africa, Brazil and the Arctic. Our data processing services group delivered record revenues in 2010 while new venture revenues increased primarily due to successful completion of data acquisition for our Arctic programs in the third quarter. Gross profit increased by $34.0 million to $93.8 million, or a 34% gross margin, compared to $59.8 million, or a 33% gross margin, for 2009.

Operating Expenses (excluding Legacy Land Systems)

Research, Development and Engineering Research, development and engineering expense was $21.0 million, as adjusted, or 5% of net revenues, for 2010, a decrease of $2.5 million compared to $23.5 million, as adjusted, or 7% of net revenues, for the corresponding period of 2009. This decrease in research and development expense was due to decreased salary and payroll expenses related to our reduced headcount, lower professional fees related to our previously implemented cost reduction measures, and lower supply and equipment costs due to the focus on our cost reduction measures. We continue to strategically invest in our next generation of seismic data acquisition products and services, and we expect this investment will continue in the future.

Marketing and Sales Marketing and sales expense of $28.8 million, as adjusted, or 7% of net revenues, for 2010 decreased $0.6 million compared to $29.4 million, as adjusted, or 9% of net revenues, for the corresponding period of 2009. Even though our 2010 revenues, as adjusted, increased 25%, our 2010 marketing and sales expenses remained flat compared to the prior year due in part to our previously implemented cost reduction measures from 2009.

General and Administrative General and administrative expenses of $54.4 million, as adjusted, for 2010 decreased $6.8 million compared to $61.2 million, as adjusted, for the corresponding period of 2009. General and administrative expenses as a percentage of net revenues for 2010 and 2009 were 13% and 18%, respectively. A portion of this decrease in general and administrative expense was due to a $3.3 million stock-based compensation expense (with respect to an out-of-period item) recorded in 2009, related to adjustments resulting from certain differences between estimated and actual forfeitures of stock-based compensation awards. The remainder of the decrease was due to lower salary and payroll expenses related to our reduced headcount and by lower bad debt expense compared to the prior year.

Non-operating Items

Interest Expense, net Interest expense, net, of $30.8 million for 2010 decreased $3.2 million compared to $34.0 million for 2009. Our interest expense in 2010 included the accretion of approximately $8.7 million of non-cash debt discount (fully amortized in the first quarter of 2010) associated with two convertible promissory notes payable

to Bank of China, New York Branch, that we had executed in October 2009 and a write-off of $10.1 million of deferred financing charges related to our debt refinancing transactions during the first quarter of 2010. After excluding these two non-cash items, our 2010 interest expense, net, was

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$12.0 million for the year. Because of our March 2010 debt refinancing transactions, we expect that our interest expense will be significantly lower in 2011 than we experienced in 2010 or 2009. For additional information, please refer to *Liquidity and Capital Resources Sources of Capital* below.

Loss on Disposition of Land Division Due to the formation of INOVA Geophysical, we deconsolidated certain land equipment assets and liabilities from our consolidated financial statements, and recognized a net loss on disposition. The majority of the loss ($21.2 million) recognized from this transaction related to accumulated foreign currency translation adjustments (effect of exchange rates) of our foreign subsidiaries, mainly in Canada. For additional information, please refer to Note 2 *Formation of INOVA Geophysical and Related Financing Transactions.*

Fair Value Adjustment of Warrant In October 2009, ION issued to BGP a warrant (the Warrant). BGP elected not to exercise the Warrant and, on March 25, 2010, BGP terminated the Warrant and surrendered it to ION. Prior to its termination, the Warrant was required to be accounted for as a liability at its fair value. During the fourth quarter of 2009, we recorded a negative non-cash fair value adjustment of $29.4 million, reflecting the increase in fair value of the Warrant from its issuance through December 31, 2009. During the first quarter of 2010, we recorded a positive non-cash fair value adjustment of $12.8 million, reflecting the decrease in the fair value of the Warrant from January 1, 2010 through March 25, 2010. For additional information, please refer to Note 2 *Formation of INOVA Geophysical and Related Financing Transactions.*

Equity in Losses of INOVA Geophysical We account for our 49% interest in INOVA Geophysical as an equity method investment and record our share of earnings of INOVA Geophysical on a one fiscal quarter lag basis. Thus, our share of INOVA Geophysical s loss for the period from March 26, 2010 to September 30, 2010 is included in our financial results for 2010. For 2010, we recorded approximately $23.7 million representing our 49% share of equity in losses of INOVA Geophysical. Included in the $23.7 million is $9.5 million that represents our share of a write-down of excess inventory by INOVA Geophysical. The land operations business continues to be significantly impacted by the economic slow-down, particularly in North America and Russia. These businesses are starting to see an increase in interest and tender activities by its customers, but we do not expect this increase in activity to have any significant impact on INOVA Geophysical s results of operations in 2011.

Gain on Legal Settlement In 2010, we recorded a gain related to cash received from our legal settlement with Greatbatch, Inc. For additional information, please refer to Note 19 *Legal Matters.*

Impairment of Cost Method Investments In 2010, we recorded a non-cash write-down of $7.6 million related to an other-than-temporary impairment of our investment in RXT shares. For additional information, please refer to Note 9 *Cost Method Investments.*

Other Income (Expense) Other income for 2010 was $0.2 million compared to other expense of ($4.0) million for 2009. This difference primarily related to changes in foreign currency exchange rates associated with our operations in the United Kingdom.

Income Tax Expense (Benefit) Income tax expense for 2010 was $26.9 million compared to a tax benefit of ($20.0) million for 2009. Income tax expense for 2010, included $16.3 million of expense related to the transactions involved in the formation of INOVA Geophysical as well as the establishment of $11.0 million of valuation allowance related to our share of INOVA Geophysical s 2010 net loss and the write-down of our investment in RXT. Also included in income tax expense for 2010 was $3.9 million of benefit related to alternative minimum tax. We continue to maintain a valuation allowance for a significant portion of our U.S. federal net deferred tax assets. In the event our expectations of future operating results change, an additional valuation allowance may be required to be established on our existing unreserved net U.S. deferred tax assets, which total $7.2 million at December 31, 2010. Our effective tax rates for 2010 and 2009 were 272.2% (provision on a loss) and 15.4% (benefit on a loss), respectively. The change

in our effective tax rate for 2010 was due primarily to the transactions involved in the formation of the INOVA Geophysical, the establishment of valuation allowances and changes in the distribution of earnings between U.S. and foreign

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jurisdictions, partially offset by recognition of a benefit related to alternative minimum tax. Excluding the impact of these transactions, our effective tax rate would have been 14.5% (provision on income) for 2010.

Preferred Stock Dividends The preferred stock dividend relates to our Series D Preferred Stock. Quarterly dividends must be paid in cash. Dividends are paid at a rate equal to the greater of (i) 5.0% per annum or (ii) the three month LIBOR rate on the last day of the immediately preceding calendar quarter plus 2.5% per annum. The Series D Preferred Stock dividend rate was 5.0% at *December 31, 2010.* The total amount of dividends paid on our preferred stock in 2010 was less than in 2009 due to the conversion of 43,000 shares of preferred stock into 9,659,231 shares of common stock in April 2010.

Year Ended December 31, 2009 Compared to Year Ended December 31, 2008

	Year Ended December 31, 2009		Year Ended December 31, 2008	
	As Reported	As Adjusted*	As Reported	As Adjusted*
	(In thousands)			
Net revenues	$ 419,781	$ 342,007	$ 679,523	$ 535,245
Cost of sales	287,643	207,231	471,775	341,545
Gross profit	132,138	134,776	207,748	193,700
Gross margin	31%	39%	31%	36%
Operating expenses:				
Research, development and engineering	44,855	23,496	49,541	25,498
Marketing and sales	34,945	29,363	47,854	41,961
General and administrative	72,510	61,208	70,893	63,351
Impairment of goodwill and intangible assets	38,044		252,283	86,910
Total operating expenses	190,354	114,067	420,571	217,720
Income (loss) from operations	$ (58,216)	$ 20,709	$ (212,823)	$ (24,020)

* Excluding Legacy Land Systems (INOVA).

Our overall total net revenues of $419.8 million for 2009 decreased $259.7 million, or 38%, compared to total net revenues for 2008 as the global recession and decline in oil and gas prices slowed demand for our products and services. Excluding Legacy Land Systems (INOVA), total net revenues decreased $193.2 million, or 36%, for the same comparative period. Our overall gross profit percentage for 2009 was 39%, as adjusted, compared to 36% for 2008, as adjusted. Total operating expenses, excluding the impairment of goodwill and intangible assets, as a percentage of net revenues for 2009 and 2008 were, respectively, 33% and 24%, as adjusted. During 2009, we recorded income from operations of $20.7 million, compared to a loss of $24.0 million, as adjusted, during 2008.

Net Revenues, Gross Profits and Gross Margins (excluding Legacy Land Systems)

Systems Net revenues for 2009 decreased by $110.6 million to $128.3 million, compared to $238.9 million for 2008. This decrease was seen across most of our Systems product lines, most notably in our marine streamer positioning products, our land geophone products and our VectorSeis Ocean (VSO) ocean-bottom system product line. The decline in our marine streamer positioning products was due to the delays in the scheduled completion and commissioning of new marine vessels to be introduced into the market, which would otherwise have been outfitted with our marine products. The decrease in our land geophone products was due to lower sales volumes resulting from the continued land seismic market decline, which greatly impacted our geophone business. The decrease in our VSO revenues was due to deliveries in 2008 of VSO System 4 and System 5, which were not duplicated in 2009. This decrease was partially offset by increased sales of our DigiFIN streamer control systems, compared to 2008 levels. Gross profit decreased by $37.9 million to $52.9 million, representing a 41% gross margin, compared to $90.8 million, representing a 38% gross margin, during 2008. The increase in gross margins in our Systems segment was mainly due to changes in the

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product mix, principally attributable to a decrease of $37.5 million in VSO revenues in 2009 compared to 2008. Sales of our VSO systems have generally experienced lower margins compared to our other marine products.

Software Net revenues for 2009 decreased by $3.5 million to $33.7 million, compared to $37.2 million for 2008. The decrease was due entirely to the effect of foreign currency exchange rate fluctuations. Expressed in British pounds sterling (the local currency), net revenues actually increased by £1.2 million, which was principally due to increased sales of our Orca software product. Gross profit decreased by $2.7 million to $22.0 million compared to $24.7 million during 2008, while gross margins of 65% remained fairly consistent with prior year margins.

Solutions Net revenues for 2009 decreased by $79.1 million, to $180.0 million, compared to $259.1 million for 2008. The results for 2009 reflected decreases in sales from our seismic data library, most notably in the offshore Africa and India regions, and decreased revenues from new multi-client seismic surveys. These decreases were due to decreased spending by our customers as a result of reduced demand caused by the global recession. With the overall market decline, the market focus shifted from the acquisition of new seismic data to utilizing and reprocessing previously acquired seismic data. This shift was evidenced by the decreases in our seismic data library sales and revenues from new multi-client seismic surveys; however, these decreases were partially offset by increases in data processing revenues. Gross profit decreased by $18.4 million to $59.8 million, representing a 33% gross margin, compared to $78.2 million, representing a 30% gross margin, during 2008. The increase in gross margins for our Solutions segment was mainly driven by the increased revenues from our higher-margin data processing services compared to revenues from these services for the prior year. This increase was partially offset by lower gross margins in our multi-client data library sales, which were due to the impact of the straight-line multi-client data library amortization rates, combined with lower revenues from sales from that data library.

Operating Expenses (excluding Legacy Land Systems)

Research, Development and Engineering Research, development and engineering expense was $23.5 million, as adjusted, or 7% of net revenues, for 2009, a decrease of $2.0 million compared to $25.5 million, as adjusted, or 5% of net revenues, for 2008. This decrease in research and development expense was due primarily to decreased salary and payroll expenses related to our reduced headcount, partially offset by increased professional fees relating to current projects.

Marketing and Sales Marketing and sales expense of $29.4 million, as adjusted, or 9% of net revenues, for 2009 decreased $12.6 million compared to $42.0 million, as adjusted, or 8% of net revenues, for 2008. This decrease in our marketing and sales expenditures reflected decreased salary and payroll expenses related to reduced headcount, a decrease in travel expenses as part of our cost reduction measures, and a decrease in conventions, exhibits, advertising and office expenses related to cost reduction measures.

General and Administrative General and administrative expenses of $61.2 million, as adjusted, for 2009 decreased $2.2 million compared to $63.4 million, as adjusted, for the corresponding period of 2008. General and administrative expenses as a percentage of net revenues for 2009 and 2008 were 18% and 12%, respectively. A portion of this decrease in general and administrative expense was due to decreased professional legal fees, travel expenses and general office expenses related to cost reduction measures partially offset by $3.3 million of stock-based compensation expense included in 2009 (with respect to an out-of-period item) related to adjustments resulting from certain differences between estimated and actual forfeitures of stock-based compensation awards.

Impairment of Goodwill and Intangible Assets After excluding the impairments of goodwill and intangible assets related to Legacy Land Systems (INOVA), we had an impairment of goodwill of $86.9 million related to our Solutions reporting unit in 2008.

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Non-operating Items

Interest Expense, net Interest expense, net, of $34.0 million for 2009 increased $22.7 million compared to $11.3 million for the corresponding period 2008. The increase was due to the higher levels of outstanding indebtedness and the secured equipment financing transaction that occurred during the second and third quarters of 2009 combined with increased revolver borrowings of $118.0 million and higher prevailing average interest rates in 2009 compared to 2008. Also, during 2009, we amortized to interest expense $6.7 million of a non-cash debt discount associated with the convertible notes issued to Bank of China in October 2009.

Fair Value Adjustment of Warrant We were required to account for separately and adjust to fair value the Warrant we issued to BGP in October 2009. During the fourth quarter of 2009, we recorded a negative non-cash fair value adjustment of $29.4 million, reflecting the increase in fair value of the Warrant from its issuance through December 31, 2009. For additional information, please refer to Note 2 *Formation of INOVA Geophysical and Related Financing Transactions.*

Impairment of Cost Method Investment At December 31, 2009, we evaluated our cost method investments for potential impairments. Based upon our evaluation and given the current market conditions related to our investment in Colibrys, Ltd., we determined that the investment was fully impaired and recorded an impairment charge of $4.5 million.

Other Income (Expense) Other expense for 2009 was ($4.0) million compared to other income of $4.2 million for 2008. The other expense for 2009 mainly relates to higher foreign currency exchange losses that primarily resulted from our operations in the United Kingdom and Canada.

Income Tax (Benefit) Expense Income tax benefit for 2009 was ($20.0) million compared to $1.1 million of tax expense for 2008. The increase in tax benefits during 2009 primarily relates to reduced consolidated income from operations. We continued to maintain a valuation allowance for a significant portion of our U.S. net deferred tax assets. Our effective tax rate for 2009 was 15.4% as compared to (0.5%) for the similar period during 2008. The increase in our effective tax rate related primarily to the 2008 impairment of goodwill, which has no tax benefit.

Preferred Stock Dividends The preferred stock dividend relates to our Series D Preferred Stock. Quarterly dividends must be paid in cash. Dividends are paid at a rate equal to the greater of (i) 5.0% per annum or (ii) the three month LIBOR rate on the last day of the immediately preceding calendar quarter plus 2.5% per annum. The Series D Preferred Stock dividend rate was 5.0% at December 31, 2009.

Liquidity and Capital Resources

Sources of Capital

Our cash requirements include our working capital requirements, and cash required for our debt service payments, dividend payments on our preferred stock, seismic data acquisitions and capital expenditures. As of December 31, 2010, we had working capital of $179.3 million, which included $84.4 million of cash on hand. Working capital requirements are primarily driven by our continued investment in our multi-client seismic data library ($64.4 million in fiscal 2010) and, to a lesser extent, our inventory purchase obligations. At December 31, 2010, our outstanding inventory purchase obligations were $22.0 million. Also, our headcount has traditionally been a significant driver of our working capital needs. Because a significant portion of our business is involved in the planning, processing and interpretation of seismic data services, one of our largest investments is in our employees, which involves cash expenditures for their salaries, bonuses, payroll taxes and related compensation expenses. Our working capital requirements may change from time to time depending upon many factors, including our operating results and

adjustments in our operating plan required in response to industry conditions, competition, acquisition opportunities and unexpected events. In recent years, our primary sources of funds have been cash flows generated from our operations, our existing cash balances, debt and equity issuances and borrowings under our revolving credit and term loan facilities (see *Revolving Line of Credit and Term Loan Facility* below)

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At December 31, 2010, our principal outstanding credit facility included:

A revolving line of credit sub-facility providing for borrowings of up to $100.0 million (no borrowings were outstanding as of that date); and

A $103.3 million remaining principal amount of a term loan sub-facility.

Revolving Line of Credit and Term Loan Facility On March 25, 2010, we, our Luxembourg subsidiary, ION International S.à r.l. (ION Sàrl), and certain of our other U.S. and foreign subsidiaries entered into a new credit facility (the Credit Facility). The terms of the Credit Facility are set forth in a credit agreement dated March 25, 2010 (the Credit Agreement), by and among us, ION Sàrl and China Merchants Bank Co., Ltd., New York Branch (CMB), as administrative agent and lender. Our obligations under the Credit Facility are guaranteed by certain of our material U.S. subsidiaries and the obligations of ION Sàrl under the Credit Facility are guaranteed by certain of our material U.S. and foreign subsidiaries, in each case that are parties to the Credit Agreement.

The Credit Facility replaces our previous syndicated credit facility under an Amended and Restated Credit Agreement dated as of July 3, 2008, as it had been subsequently amended numerous times (the Prior Facility). The terms and conditions of the Credit Facility are similar in many respects to the terms and conditions under the Prior Facility. The Credit Facility provides us with a revolving line of credit of up to $100.0 million in borrowings (including borrowings for letters of credit), and refinanced our outstanding term loan under the Prior Facility with a new term loan in the original principal amount of $106.3 million. The Credit Facility, like the Prior Facility, permits direct borrowings by ION Sàrl for use by our foreign subsidiaries.

Under the Credit Facility, up to $75.0 million is available for revolving line of credit borrowings by us, and up to $60.0 million (or its equivalent in foreign currencies) is available for revolving line of credit borrowings by ION Sàrl, but the total amounts borrowed may not exceed $100.0 million. Borrowings under the Credit Facility are not subject to a borrowing base. As of December 31, 2010, and February 18, 2011, we had no indebtedness outstanding under the revolving line of credit.

Revolving credit borrowings under the Credit Facility may be utilized to fund the working capital needs of ION and our subsidiaries, to finance acquisitions and investments and for general corporate purposes. In addition, the Credit Facility includes a $35.0 million sub-limit for the issuance of documentary and stand-by letters of credit.

The revolving credit indebtedness and term loan indebtedness under the Credit Facility are each scheduled to mature on March 24, 2015. The $106.3 million original principal amount under the term loan is subject to scheduled quarterly amortization payments of $1.0 million per quarter until the maturity date, with the remaining unpaid principal amount of the term loan due upon the maturity date. The indebtedness under the Credit Facility may sooner mature on a date that is 18 months after the earlier of (i) any dissolution of INOVA Geophysical, or (ii) the administrative agent determining in good faith that INOVA Geophysical is unable to perform its obligations under an additional guarantee it has provided under the Credit Facility, which is described below.

The interest rate per annum on borrowings under the Credit Facility will be, at our option:

An alternate base rate equal to the sum of (i) the greatest of (a) the prime rate of CMB, (b) a federal funds effective rate plus 0.50%, or (c) an adjusted LIBOR-based rate plus 1.0%, and (ii) an applicable interest margin of 2.5%; or

For eurodollar borrowings and borrowings in Euros, Pounds Sterling or Canadian Dollars, the sum of (i) an adjusted LIBOR-based rate, and (ii) an applicable interest margin of 3.5%.

As of December 31, 2010, the $103.3 million in outstanding term loan indebtedness under the Credit Facility accrues interest at a rate of 3.8% rate per annum.

The parties had originally contemplated that INOVA Geophysical would be an additional guarantor or provider of credit support under the Credit Agreement. However, due to the time required to obtain necessary

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Chinese governmental approvals for such credit support from INOVA Geophysical, the Credit Agreement instead required BGP to enter into an agreement to guarantee the indebtedness under the Credit Facility, which INOVA Geophysical s guarantee would replace when the applicable governmental approvals were obtained. We entered into a credit support agreement with BGP whereby ION agreed to indemnify BGP for losses sustained by BGP that arose out of or were a result of the enforcement of BGP s guarantee. In June 2010, the applicable governmental approvals were obtained and BGP was then released from its guarantee obligations and these obligations were assumed by INOVA Geophysical as originally contemplated under the Credit Agreement. In addition, ION s credit support agreement with BGP was terminated.

Our obligations and the guarantee obligations of the U.S. guarantors are secured by a first-priority security interest in 100% of the stock of all U.S. guarantors and 65% of the stock of certain first-tier foreign subsidiaries and by substantially all other assets of ION and the U.S. guarantors. The obligations of ION Sàrl and the foreign guarantors are secured by a first-priority security interest in 100% of the stock of the foreign guarantors and the U.S. guarantors and substantially all other assets of the foreign guarantors, the U.S. guarantors and ION.

The agreements governing the Credit Facility contain covenants that restrict the borrowers, the guarantors and their subsidiaries, subject to certain exceptions, from:

- Incurring additional indebtedness (including capital lease obligations), granting or incurring additional liens on our properties, pledging shares of our subsidiaries, entering into certain merger or other change-in-control transactions, entering into transactions with our affiliates, making certain sales or other dispositions of assets, making certain investments, acquiring other businesses and entering into sale-leaseback transactions with respect to our properties;

- Paying cash dividends on our common stock; and

- Repurchasing and acquiring our capital stock, unless there is no event of default under the Credit Agreement and the amount of such repurchases does not exceed an amount equal to (i) 25% of our consolidated net income for the prior fiscal year, less (ii) the amount of any cash dividends paid on our common stock.

The Credit Facility requires compliance with certain financial covenants, including requirements commencing on June 30, 2011 and for each fiscal quarter thereafter for ION and its U.S. subsidiaries to:

- Maintain a minimum fixed charge coverage ratio in an amount equal to at least 1.125 to 1;

- Not exceed a maximum leverage ratio of 3.25 to 1; and

- Maintain a minimum tangible net worth of at least 60% of ION s tangible net worth as of March 31, 2010, as defined.

The fixed charge coverage ratio is defined as the ratio of (i) our consolidated EBITDA less cash income tax expense and non-financed capital expenditures, to (ii) the sum of scheduled payments of lease payments and payments of principal indebtedness, interest expense actually paid and cash dividends, in each case for the four consecutive fiscal quarters most recently ended. The leverage ratio is defined as the ratio of (x) total funded consolidated debt, capital lease obligations and issued letters of credit (net of cash collateral) to (y) our consolidated EBITDA for the four consecutive fiscal quarters most recently ended. Upon commencement of the financial covenants on June 30, 2011, we expect to be in compliance and remain in compliance throughout the remainder of 2011.

The Credit Agreement contains customary event of default provisions similar to those contained in the credit agreement for the Prior Facility (including a change of control event affecting us), the occurrence of which could lead to an acceleration of ION s obligations under the Credit Facility. The Credit Agreement also provides that certain acts of bankruptcy, insolvency or liquidation of INOVA Geophysical or BGP would constitute additional events of default under the Credit Facility.

Interest Rate Caps We use derivative financial instruments to manage our exposure to the interest rate risks related to the variable rate debt under our term loan indebtedness. We do not use derivatives for trading

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or speculative purposes and only enter into contracts with major financial institutions based on their credit rating and other factors.

In August of 2010, we entered into an interest rate cap agreement and purchased interest rate caps having an initial notional amount of $103.3 million with a three-month average LIBOR cap of 2.0%. If and when the three-month average LIBOR rate exceeds 2.0%, the LIBOR portion of interest owed by us would be effectively capped at 2.0%. This initial notional amount was set to equal the projected outstanding balance under our term loan facility at December 31, 2010. The notional amount was then set so as not to exceed the outstanding balance of our term loan facility over the period through March 29, 2013. We purchased these interest rate caps for an amount equal to approximately $0.4 million. We designated the interest rate caps as cash flow hedges. See further discussion regarding these interest rate caps at Note 13 *Notes Payable, Long-term Debt, Lease Obligations and Interest Rate Caps.*

Cumulative Convertible Preferred Stock During 2005, we entered into an Agreement dated February 15, 2005 with Fletcher (this Agreement, as amended to the date hereof, is referred to as the Fletcher Agreement) and issued to Fletcher 30,000 shares of our Series D-1 Preferred Stock in a privately-negotiated transaction, receiving $29.8 million in net proceeds. The Fletcher Agreement also provided to Fletcher an option to purchase up to an additional 40,000 shares of additional series of preferred stock from time to time, with each series having a conversion price that would be equal to 122% of an average daily volume-weighted market price of our common stock over a trailing period of days at the time of issuance of that series. In 2007 and 2008, Fletcher exercised this option and purchased 5,000 shares of Series D-2 Preferred Stock for $5.0 million (in December 2007) and the remaining 35,000 shares of Series D-3 Preferred Stock for $35.0 million (in February 2008). Fletcher remains the sole holder of all of our outstanding shares of Series D Preferred Stock. Dividends on the shares of Series D Preferred Stock must be paid in cash.

Under the Fletcher Agreement, if a 20-day volume-weighted average trading price per share of our common stock fell below $4.4517 (the Minimum Price), we were required to deliver a notice (the Reset Notice) to Fletcher. On November 28, 2008, the 20-day volume-weighted average trading price per share of our common stock on the New York Stock Exchange for the previous 20 trading days was calculated to be $4.328, and we delivered the Reset Notice to Fletcher in accordance with the terms of the Fletcher Agreement. In the Reset Notice, we elected to reset the conversion prices for the Series D Preferred Stock to the Minimum Price ($4.4517 per share), and Fletcher s redemption rights were terminated. The adjusted conversion price resulting from this election was effective on November 28, 2008.

In addition, under the Fletcher Agreement, the aggregate number of shares of common stock issued or issuable to Fletcher upon conversion or redemption of, or as dividends paid on, the Series D Preferred Stock could not exceed a designated maximum number of shares (the Maximum Number), and such Maximum Number could be increased by Fletcher providing us with a 65-day notice of increase, but under no circumstance could the total number of shares of common stock issued or issuable to Fletcher with respect to the Series D Preferred Stock ever exceed 15,724,306 shares. The Fletcher Agreement had designated 7,669,434 shares as the original Maximum Number. In November 2008, Fletcher delivered a notice to us to increase the Maximum Number to 9,669,434 shares, effective February 1, 2009. On September 15, 2009, Fletcher delivered a second notice to us, intending to increase the Maximum Number of shares of common stock issuable upon conversion of our Series D Preferred Stock from 9,669,434 shares to 11,669,434 shares, to become effective on November 19, 2009. Our interpretation of the agreement with Fletcher was that Fletcher had the right to issue only one notice to increase the Maximum Number (which right Fletcher had exercised in November 2008). On November 6, 2009, we filed an action in the Court of Chancery of the State of Delaware seeking a declaration that, under the Fletcher Agreement, Fletcher is permitted to deliver only one notice to increase the Maximum Number and that its second notice is legally invalid. On November 5, 2010, the Court of Chancery issued its opinion in the matter, and held that Fletcher was entitled to deliver multiple notices to increase the Maximum Number of shares of common stock (but not beyond a total of

15,724,306 shares). On November 8, 2010, Fletcher delivered a notice to us to increase the Maximum Number to the full 15,724,306 shares, effective January 12, 2011.

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On April 8, 2010, Fletcher converted 8,000 of its shares of Series D-1 Cumulative Convertible Preferred Stock, and all of the outstanding 35,000 shares of Series D-3 Cumulative Convertible Preferred Stock, into a total of 9,659,231 shares of our common stock. Fletcher continues to own 22,000 shares of Series D-1 Cumulative Convertible Preferred Stock and 5,000 shares of Series D-2 Cumulative Convertible Preferred Stock. As a result of the above ruling by the Court of Chancery, under the terms of the Fletcher Agreement, Fletcher s remaining 27,000 shares of Series D Preferred Stock are convertible into a total of up to 6,065,075 shares of our common stock.

The conversion prices and number of shares of common stock to be acquired upon conversion are also subject to customary anti-dilution adjustments. Converting the shares of Series D Preferred Stock at one time could result in significant dilution to our stockholders that could limit our ability to raise additional capital. Certain rights and obligations of Fletcher and our company pertaining to the Series D Preferred Stock are currently the subject of pending litigation in the Chancery Court of the State of Delaware. See Item 3. *Legal Proceedings* and Item 1A. *Risk Factors* .

Meeting our Liquidity Requirements

As of December 31, 2010, our total outstanding indebtedness (including capital lease obligations) was approximately $108.7 million, consisting of approximately $103.3 million outstanding under the term loan, $3.7 million relating to our facility lease obligation and $1.7 million of capital leases. The repayment in full in March 2010 of the previous $101.6 million term loan, the $118.0 million in revolving indebtedness under our former credit facility and the $35.0 million in outstanding indebtedness under an amended and restated subordinated promissory note instrument delivered in connection with our 2008 acquisition of ARAM Systems Ltd., plus the assumption by INOVA Geophysical of our $18.4 million (as of March 25, 2010) secured equipment lease financing indebtedness owed to an affiliate of ICON Capital Inc. (ICON), represented a significant de-leveraging of our balance sheet and the repayment of the majority of our short-term debt. As of December 31, 2010, we had no amounts drawn on our revolving line of credit under our Credit Facility, and had approximately $84.4 million of cash on hand.

For 2010, total capital expenditures, including investments in our multi-client data library, were $71.8 million, and we are projecting capital expenditures for the year 2011 to be between $100 million to $120 million. Of the total projected 2011 capital expenditures, we are estimating that approximately $90 million to $110 million will be spent on investments in our multi-client data library, but we are anticipating that most of these investments will be underwritten by our customers. To the extent our customers commitments do not reach an acceptable level of pre-funding, the amount of our anticipated investment in these data libraries could be significantly less.

Cash Flow from Operations

We have historically financed our operations from internally generated cash and funds from equity and debt financings. Cash and cash equivalents were $84.4 million at December 31, 2010, compared to $16.2 million at December 31, 2009. Net cash provided by operating activities was $133.4 million for 2010, compared to $52.0 million for 2009. The increase in our cash flows from operations was due in part to the increase in our income from operations for 2010 compared to our loss from operations for 2009. Also positively impacting our cash flows was a legal settlement of $24.5 million cash collected in the fourth quarter. Further positively impacting our cash provided by operations was our cash collections in 2010 related to increased sales of data libraries during the fourth quarter; the investment in these data libraries had been made prior to 2010.

Cash and cash equivalents were $16.2 million at December 31, 2009, a decrease of $19.0 million compared to December 31, 2008. Net cash provided by operating activities was $52.0 million for 2009, compared to $111.7 million for 2008. The decrease in our cash flows provided by operations was due in part to the decrease in revenues and our results of operations for 2009 compared to our results for 2008. The decline in our revenues, combined with an

increase in our receivables collection efforts, resulted in reductions

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in our account receivables and unbilled receivables balances. Also, during 2009, we made significant payments to our vendors related to our outstanding inventory purchase obligations.

Cash Flow from Investing Activities

Net cash flow provided by investing activities was $27.5 million for 2010, compared to a net use of cash for investing activities of $91.6 million for 2009. The principal source of cash in our investing activities during 2010 was $99.8 million in net proceeds received by us from BGP in exchange for BGP s purchase from us of a 51% equity interest in INOVA Geophysical. This source of cash was partially offset by $64.4 million of continued investments in our multi-client data library.

Net cash flow used in investing activities was $91.6 million for 2009, compared to $354.6 million for 2008. The net cash flow used for investing activities during 2009 were primarily related to a $89.6 million investment in our multi-client data library and $3.0 million of equipment and rental equipment purchases.

Cash Flow from Financing Activities

Net cash flow used in financing activities was $92.7 million for 2010, compared to $19.7 million of net cash flow provided by financing activities for 2009. The net cash flow used in financing activities during 2010 was primarily related to net repayments on our prior revolving credit facility of $89.4 million and payments on our notes payable and long-term debt of $145.6 million. This cash outflow was partially offset by proceeds of $38.0 million from the issuance of shares of our common stock to BGP in March 2010 and net proceeds of $105.7 million related to the funding of the term loan under the Credit Facility. We also paid $1.9 million in cash dividends on our outstanding Series D Preferred Stock in 2010.

Net cash flow provided by financing activities was $19.7 million for 2009, compared to $244.3 million for 2008. The net cash flow provided by financing activities during 2009 primarily consisted of $52.0 million in net borrowings under our revolving credit facility, net proceeds from the ICON secured rental equipment financing transaction of $19.2 million, and the net proceeds of $38.2 million from a private placement of our common stock in June 2009. This cash inflow was partially offset by scheduled principal payments on our term loan under our Prior Facility, the prepayment of the principal balance on the Jefferies bridge loan indebtedness and payments under our other notes payable and capital lease obligations all totaling $81.5 million. Additionally, we paid $3.5 million in cash dividends on our outstanding Series D-1, Series D-2 and Series D-3 Preferred Stock and $4.6 million in financing costs related to our debt transactions and amendments to our debt facilities during 2009.

Inflation and Seasonality

Inflation in recent years has not had a material effect on our costs of goods or labor, or the prices for our products or services. Traditionally, our business has been seasonal, with strongest demand in the fourth quarter of our fiscal year. The fourth quarter of 2009 was not as strong as seen historically because the typical discretionary spending that normally occurs during the fourth quarter was not realized. However, we saw increased demand in the fourth quarter of 2010 driven by increased capital expenditures from our E&P customers, which was more consistent with our historical seasonality.

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Future Contractual Obligations

The following table sets forth estimates of future payments of our consolidated contractual obligations, as of December 31, 2010 (in thousands):

Contractual Obligations	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Notes payable and long-term debt	$ 106,907	$ 4,610	$ 9,546	$ 92,751	$
Interest on notes payable and long-term debt obligations	16,395	4,264	7,829	4,302	
Equipment capital lease obligations	1,753	1,463	290		
Operating leases	31,954	15,416	13,103	2,373	1,062
Product warranty	784	784			
Purchase obligations	22,032	21,542	490		
Total	$ 179,825	$ 48,079	$ 31,258	$ 99,426	$ 1,062

The long-term debt and lease obligations at December 31, 2010 included $103.3 million under our term loan scheduled to mature in 2015 and $3.7 million of indebtedness related to our Stafford, Texas facility sale-leaseback arrangement. The $1.7 million of capital lease obligations relates to GXT s financing of computer and other equipment purchases.

The operating lease commitments at December 31, 2010 relate to our leases for certain equipment, offices, processing centers, and warehouse space under non-cancelable operating leases. Our purchase obligations primarily relate to our committed inventory purchase orders for which deliveries are scheduled to be made in 2011.

Dividends on our Series D Preferred Stock are payable quarterly and must be paid in cash. In 2010, we paid $1.9 million in dividends on our Series D Preferred Stock. The dividend rate was 5.0% at December 31, 2010. See *Liquidity and Capital Resources* above.

Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in conformity with generally accepted accounting principles in the United States requires management to make choices between acceptable methods of accounting and to use judgment in making estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities, and the reported amounts of revenue and expenses. The following accounting policies are based on, among other things, judgments and assumptions made by management that include inherent risk and uncertainties. Management s estimates are based on the relevant information available at the end of each period. We believe that all of the judgments and estimates used to prepare our financial statements were reasonable at the time we made them, but circumstances may change requiring us to revise our estimates in ways that could be materially adverse to our results of operations and financial condition. Management has discussed these critical accounting estimates with the Audit Committee of our Board of Directors and the Audit Committee has reviewed our disclosures relating to the estimates in this Management s Discussion and Analysis.

Revenue Recognition

We derive revenue from the sale of (i) acquisition systems and other seismic equipment within our Systems segment; (ii) multi-client surveys, licenses of off-the-shelf data libraries and imaging services, within our Solutions segment; and (iii) navigation, survey and quality control software systems within our Software segment.

Acquisition Systems and Other Seismic Equipment For the sales of acquisition systems and other seismic equipment, we follow the requirements of ASC 605-10 *Revenue Recognition* and recognize revenue when (a) evidence of an arrangement exists; (b) the price to the customer is fixed and determinable; (c) collectibility is reasonably assured; and (d) the acquisition system or other seismic equipment is delivered

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to the customer and risk of ownership has passed to the customer, or, in the limited case where a substantive customer-specified acceptance clause exists in the contract, the later of delivery or when the customer-specified acceptance is obtained.

Multi-Client Surveys, Data Libraries and Imaging Services Revenues from multi-client surveys are recognized as the seismic data is acquired and/or processed on a proportionate basis as work is performed. Under this method, we recognize revenues based upon quantifiable measures of progress, such as kilometers acquired or days processed. Upon completion of a multi-client seismic survey, the survey data is considered off-the-shelf and licenses to the survey data are sold to customers on a non-exclusive basis. The license of a completed multi-client survey is represented by the license of one standard set of data. Revenues on licenses of completed multi-client data surveys are recognized when (a) a signed final master geophysical data license agreement and accompanying supplemental license agreement are returned by the customer; (b) the purchase price for the license is fixed or determinable; (c) delivery or performance has occurred; and (d) no significant uncertainty exists as to the customer s obligation, willingness or ability to pay. In limited situations, we have provided the customer with a right to exchange seismic data for another specific seismic data set. In these limited situations, we recognize revenue at the earlier of the customer exercising its exchange right or the expiration of the customer s exchange right.

Revenues from all imaging and other services are recognized when persuasive evidence of an arrangement exists, the price is fixed or determinable, and collectibility is reasonably assured. Revenues from contract services performed on a day-rate basis are recognized as the service is performed.

Software For the sales of navigation, survey and quality control software systems, we follow the requirements for these transactions of ASC 985-605 *Software Revenue Recognition.* We recognize revenue from sales of these software systems when (a) evidence of an arrangement exists; (b) the price to the customer is fixed and determinable; (c) collectibility is reasonably assured; and (d) the software is delivered to the customer and risk of ownership has passed to the customer, or, in the limited case where a substantive customer-specified acceptance clause exists, the later of delivery or when the customer-specified acceptance is obtained. These arrangements generally include us providing related services, such as training courses, engineering services and annual software maintenance. We allocate revenue to each element of the arrangement based upon vendor-specific objective evidence (VSOE) of fair value of the element or, if VSOE is not available for the delivered element, we apply the residual method.

In addition to perpetual software licenses, we offer certain time-based software licenses. For time-based licenses, we recognize revenue ratably over the contract term, which is generally two to five years.

Multi-element Arrangements When separate elements (such as an acquisition system, other seismic equipment and/or imaging services) are contained in a single sales arrangement, or in related arrangements with the same customer, we follow the requirements of ASC 605-25 *Accounting for Multiple-Element Revenue Arrangement* (ASC 605-25). The multiple element arrangements guidance codified in ASC 605-25 was modified as a result of the final consensus reached in Accounting Standards Update (ASU) 2009-13, *Revenue Arrangements with Multiple Deliverables*. We adopted this new guidance as of January 1, 2010. Accordingly, we applied this guidance to transactions initiated or materially modified on or after January 1, 2010. The new guidance does not apply to software sales accounted for under ASC 985-605. There was no material impact of adopting this guidance to our results for 2010.

This guidance eliminates the residual method of allocation for multiple-deliverable revenue arrangements and requires that arrangement consideration be allocated at the inception of an arrangement to all deliverables using the relative selling price method. Per the provisions of this guidance, we allocate arrangement consideration to each deliverable qualifying as a separate unit of accounting in an arrangement based on its relative selling price. We determine selling price using VSOE, if it exists, and otherwise third-party evidence (TPE). If neither VSOE nor TPE of selling price exists for a unit of accounting, we use estimated selling price (ESP). We generally expect that we will not be able to

establish TPE due to the nature of the markets in which we compete, and, as such, we typically will determine selling price using VSOE or if not available, ESP. VSOE is generally limited to the price charged when the same or similar product is sold on a standalone

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basis. If a product is seldom sold on a standalone basis, it is unlikely that we can determine VSOE for the product.

The objective of ESP is to determine the price at which we would transact if the product were sold by us on a standalone basis. Our determination of ESP involves a weighting of several factors based on the specific facts and circumstances of the arrangement. Specifically, we will consider the anticipated margin on the particular deliverable, the selling price and profit margin for similar products and our ongoing pricing strategy and policies.

We believe this new guidance will principally impact our Systems division in which a typical arrangement might involve the sale of various products of our acquisition systems and other seismic equipment. Products under these arrangements are often delivered to the customer within the same period, but in certain situations, depending upon product availability and the customer s delivery requirements, the products could be delivered to the customer at different times. In these situations, we consider our products to be separate units of accounting provided the delivered product has value to the customer on a standalone basis. We consider a deliverable to have standalone value if the product is sold separately by us or another vendor or could be resold by the customer. Further, our revenue arrangements generally do not include a general right of return relative to the delivered products.

In addition, pursuant to the transitional requirements of the new multiple element revenue guidance, we adopted the guidance codified by ASU 2009-14, *Certain Arrangements That Include Software Elements*, as of January 1, 2010. This guidance amends the accounting model for revenue arrangements that includes both tangible products and software elements, such that tangible products containing both software and non-software components that function together to deliver the tangible product s essential functionality are no longer within the scope of software revenue guidance. There was not a material impact to our financial statements of adopting this guidance.

Multi-Client Data Library

Our multi-client data library consists of seismic surveys that are offered for licensing to customers on a non-exclusive basis. The capitalized costs include the costs paid to third parties for the acquisition of data and related activities associated with the data creation activity and direct internal processing costs, such as salaries, benefits, computer-related expenses, and other costs incurred for seismic data project design and management. For 2010, 2009 and 2008, we capitalized, as part of our multi-client data library, $2.8 million, $3.8 million, and $5.4 million, respectively, of direct internal processing costs.

Our method of amortizing the costs of an in-process multi-client data library (the period during which the seismic data is being acquired and/or processed) is the percentage of actual revenue to the total estimated revenue (or ultimate revenue) multiplied by the total cost of the project (the sales forecast method). Once a multi-client data library is complete, the survey data is considered off-the-shelf and our method of amortization is then the greater of (i) the sales forecast method or (ii) the straight-line basis over a four-year period. The sales forecast method is our primary method of calculating amortization. We have determined the amortization period of four years based upon our historical experience that indicates that the majority of our revenues from multi-client surveys are derived during the acquisition and processing phases and during four years subsequent to survey completion.

Estimated sales are determined based upon discussions with our customers, our experience, and our knowledge of industry trends. Changes in sales estimates may have the effect of changing the percentage relationship of cost of services to revenue. In applying the sales forecast method, an increase in the projected sales of a survey will result in lower cost of services as a percentage of revenue, and higher earnings when revenue associated with that particular survey is recognized, while a decrease in projected sales will have the opposite effect. Assuming that the overall volume of sales mix of surveys generating revenue in the period was held constant in 2010, an increase in 10% in the sales forecasts of all surveys would have decreased our amortization expense by approximately $4.4 million.

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We estimate the ultimate revenue expected to be derived from a particular seismic data survey over its estimated useful economic life to determine the costs to amortize, if greater than straight-line amortization. That estimate is made by us at the project s initiation. For a completed multi-client survey, we review the estimate quarterly. If during any such review, we determine that the ultimate revenue for a survey is expected to be more or less than the original estimate of total revenue for such survey, we decrease or increase (as the case may be) the amortization rate attributable to the future revenue from such survey. In addition, in connection with such reviews, we evaluate the recoverability of the multi-client data library, and if required under ASC 360 *Accounting for the Impairment and Disposal of Long-Lived Assets*, (ASC 360) record an impairment charge with respect to such data. There were no impairment charges during 2010 and 2009.

Equity Method Investment

We use the equity method of accounting for investments in entities in which we have an ownership interest between 20% and 50% and exercise significant influence. Under this method, an investment is carried at the acquisition cost, plus our equity in undistributed earnings or losses since acquisition. As provided by ASC 815 *Investments*, we record our share of earnings or losses of INOVA Geophysical on a one fiscal quarter lag basis. Thus, our share of INOVA Geophysical s results for the period from March 26, 2010 through September 30, 2010 is included in our financial results for the twelve months ended December 31, 2010.

Reserve for Excess and Obsolete Inventories

Our reserve for excess and obsolete inventories is based on historical sales trends and various other assumptions and judgments, including future demand for our inventory and the timing of market acceptance of our new products. Should these assumptions and judgments not be realized for reasons such as delayed market acceptance of our new products, our valuation allowance would be adjusted to reflect actual results. Our industry is subject to technological change and new product development that could result in obsolete inventory. Our valuation reserve for inventory at December 31, 2010 was $12.9 million compared to $30.6 million at December 31, 2009. The majority of the decrease in our reserves for excess and obsolete inventory in 2010 related to the disposition of our land division.

Goodwill and Other Intangible Assets

Goodwill is allocated to our reporting units, which is either the operating segment or one reporting level below the operating segment. For purposes of performing the impairment test for goodwill as required by ASC 350 *Intangibles Goodwill and Other* (ASC 350), we established the following reporting units: Marine Systems, Sensor Geophone, Software, and Solutions. To determine the fair value of our reporting units, we use a discounted future returns valuation method. If we had established different reporting units or utilized different valuation methodologies, our impairment test results could differ.

In accordance with ASC 350, we are required to evaluate the carrying value of our goodwill at least annually for impairment, or more frequently if facts and circumstances indicate that it is more likely than not impairment has occurred. We formally evaluate the carrying value of our goodwill for impairment as of December 31 for each of our reporting units. If the carrying value of a reporting unit of an entity that includes goodwill is determined to be more than the fair value of the reporting unit, there exists the possibility of impairment of goodwill. An impairment loss of goodwill is measured in two steps by first allocating the fair value of the reporting unit to net assets and liabilities including recorded and unrecorded other intangible assets to determine the implied carrying value of goodwill. The next step is to measure the difference between the carrying value of goodwill and the implied carrying value of goodwill, and, if the implied carrying value of goodwill is less than the carrying value of goodwill, an impairment loss is recorded equal to the difference.

We completed our annual goodwill impairment testing as of December 31, 2010 and 2009 noting no impairments. In 2008, we recorded a goodwill impairment charge of $242.2 million, fully impairing the goodwill in our Legacy Land Systems (INOVA) and Solutions reporting units. Our remaining goodwill as of December 31, 2010 was comprised of $27.0 million in our Marine Systems and $24.3 million in our Software reporting units. Our 2010 and 2009 annual impairment tests both indicated that the fair value of these two

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reporting units significantly exceeded their carrying values. Our analyses are based upon our internal operating forecasts, which include assumptions about market and economic conditions. However, if our estimates or related projections associated with the reporting units significantly change in the future, we may be required to record further impairment charges. If the operational results of our segments are lower than forecasted or the economic conditions are worse than expected, then the fair value of our segments will be adversely affected.

Our intangible assets other than goodwill relate to proprietary technology, patents, customer relationships and trade names that are amortized over the estimated periods of benefit (ranging from 4 to 20 years). Following the guidance of ASC 360, we review the carrying values of these intangible assets for impairment if events or changes in the facts and circumstances indicate that it is more likely than not their carrying value may not be recoverable. Any impairment determined is recorded in the current period and is measured by comparing the fair value of the related asset to its carrying value. For 2009 and 2008, we determined that certain of the intangible assets (customer relationships, trade names and non-compete agreements) associated with our ARAM acquisition (now part of INOVA Geophysical) were impaired and recorded impairment charges of $38.0 million and $10.1 million, respectively.

Similar to our treatment of goodwill, in making these assessments, we rely on a number of factors, including operating results, business plans, internal and external economic projections, anticipated future cash flows and external market data. However, if our estimates or related projections associated with the reporting units significantly change in the future, we may be required to record further impairment charges.

Stock-Based Compensation

We account for stock-based compensation under the recognition provisions of ASC 718 *Share-Based Payment* (ASC 718). We estimate the value of stock option awards on the date of grant using the Black-Scholes option pricing model. The determination of the fair value of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of subjective variables. These variables include, but are not limited to, our expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behaviors, risk-free interest rate, and expected dividends.

The accompanying financial statements for 2009 include approximately $3.3 million of stock-based compensation expense related to 2008, 2007 and 2006. ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The prior-period stock-based compensation expense relates to adjustments between estimated and actual forfeitures, which should have been recognized over the vesting period of such awards. Such amounts were not deemed material with respect to either the results of prior years or the results and the trend of earnings for 2009 and were therefore recorded in 2009.

In 2010, 2009 and 2008, we recognized $8.1 million, $12.7 million and $8.3 million, respectively, of stock-based compensation expense related to our employees outstanding stock-based awards. The total expense in 2010 was comprised of $1.1 million reflected in cost of sales, $0.5 million in research, development and engineering expense, $0.8 million in marketing and sales expense, and $5.7 million in general and administrative expense. In addition to the stock-based compensation expense related to the Company s plans, we recorded less than $0.1 million of stock-based compensation expense in 2010 related to employee stock appreciation rights. Pursuant to ASC 718, the stock appreciation rights are considered liability awards and, as such, these amounts are accrued in the liability section of the balance sheet.

Recent Accounting Pronouncements

See Note 1 of *Notes to Consolidated Financial Statements*.

Credit and Sales Risks

No single customer represented 10% or more of our consolidated net revenues for 2010, 2009 and 2008; however, our top five customers in total represented approximately 28%, 29% and 30%, respectively of our

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consolidated net revenues. The loss of any significant customers or deterioration in our relationship with these customers could have a material adverse effect on our results of operations and financial condition.

For 2010, we recognized $136.8 million of sales to customers in Europe, $51.5 million of sales to customers in Asia Pacific, $18.4 million of sales to customers in Africa, $10.5 million of sales to customers in the Middle East, $46.0 million of sales to customers in Latin American countries, and $3.6 million of sales to customers in the Commonwealth of Independent States, or former Soviet Union (CIS). The majority of our foreign sales are denominated in U.S. dollars. For 2010, 2009 and 2008, international sales comprised 60%, 64% and 60%, respectively, of total net revenues. For a number of years, the CIS and certain Latin American countries have experienced economic problems and uncertainties. However, given the global downturn that commenced in 2008, more countries and areas of the world have also experienced economic problems and uncertainties. To the extent that world events or economic conditions negatively affect our future sales to customers in these and other regions of the world or the collectability of our existing receivables, our future results of operations, liquidity, and financial condition may be adversely affected. We currently require customers in these higher risk countries to provide their own financing and in some cases assist the customer in organizing international financing and Export-Import credit guarantees provided by the United States government. We do not currently extend long-term credit through notes to companies in countries we consider to be inappropriate for credit risk purposes.

Certain Relationships and Related Party Transactions

In April 2010, we advanced $5.0 million to INOVA Geophysical under a short-term promissory note. The note was scheduled to mature on August 31, 2010 and accrued interest at an annual rate equal to the London Interbank Offered Rate (LIBOR) plus 350 basis points. INOVA Geophysical repaid the outstanding balance on this note of $5.0 million in August 2010. Additionally, BGP advanced $5.0 million to INOVA Geophysical during the second quarter on similar terms, and INOVA Geophysical repaid the amount in full.

In May 2010, we entered into a second promissory note arrangement with INOVA Geophysical providing for potential borrowings up to $4.5 million, under which INOVA Geophysical borrowed $1.5 million. This note accrued interest at an annual rate equal to LIBOR plus 350 basis points, and INOVA Geophysical repaid the outstanding balance on this second note of $1.5 million in July 2010. The purpose of these advances was to provide short-term capital to INOVA Geophysical prior to INOVA Geophysical s obtaining its own line of credit, which it secured in June 2010.

We have also entered into a support and transition agreement to provide INOVA Geophysical with certain administrative services, including tax, legal, information technology, treasury, human resources, bookkeeping, facilities and marketing services. The terms of the arrangement provide for INOVA Geophysical to pay us approximately $0.3 million per month (beginning in April 2010) for services and to reimburse us for third-party and lease costs we have incurred directly related to the support of INOVA Geophysical. The term of the agreement is for two years and will automatically renew for one-year periods, unless either party provides notice of its intent to terminate the agreement. At December 31, 2010, INOVA Geophysical owed us approximately $3.0 million that we reflected in the balance of Accounts Receivable, net. The majority of these shared services we provide are reflected as reductions to general and administrative expense.

For 2010, 2009 and 2008, we recorded revenues from BGP for purchases of products and services of $16.9 million, $32.2 million and $17.6 million, respectively. Trade receivables due from BGP were $3.0 million and $9.2 million at December 31, 2010 and 2009, respectively. BGP owned approximately 15.6% of our outstanding common stock as of December 31, 2010.

James M. Lapeyre, Jr. is chairman of our board of directors. He is also the chairman and a significant equity owner of Laitram, L.L.C. (Laitram) and has served as president of Laitram and its predecessors since 1989. Laitram is a privately-owned, New Orleans-based manufacturer of food processing equipment and modular conveyor belts. Mr. Lapeyre and Laitram together owned approximately 6.0% of our outstanding common stock as of December 31, 2010.

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We acquired DigiCourse, Inc., our marine positioning products business, from Laitram in 1998 and have renamed it I/O Marine Systems, Inc. In connection with that acquisition, we entered into a Continued Services Agreement with Laitram under which Laitram agreed to provide us certain bookkeeping, software, manufacturing, and maintenance services. Manufacturing services consist primarily of machining of parts for our marine positioning systems. The term of this agreement expired in September 2001 but we continue to operate under its terms. In addition, from time to time, when we have requested, the legal staff of Laitram has advised us on certain intellectual property matters with regard to our marine positioning systems. Under a lease of commercial property dated February 1, 2006, between Lapeyre Properties L.L.C. (an affiliate of Laitram) and ION, we agreed to lease certain office and warehouse space from Lapeyre Properties until January 2011. During 2010, we paid Laitram a total of approximately $3.1 million, which consisted of approximately $2.3 million for manufacturing services, $0.7 million for rent and other pass-through third party facilities charges, and $0.1 million for reimbursement for costs related to providing administrative and other back-office support services in connection with our Louisiana marine operations. During 2009 and 2008, we paid Laitram approximately $4.0 million and $4.3 million, respectively, for these services. In the opinion of our management, the terms of these services are fair and reasonable and as favorable to us as those that could have been obtained from unrelated third parties at the time of their performance.

Off-Balance Sheet Arrangements

As of December 31, 2010, we did not have any off-balance-sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

Indemnification

In the ordinary course of our business, we enter into contractual arrangements with our customers, suppliers, and other parties under which we may agree to indemnify the other party to such arrangement from certain losses it incurs relating to our products or services or for losses arising from certain events as defined within the particular contract. Some of these indemnification obligations may not be subject to maximum loss limitations. Historically, payments we have made related to these indemnification obligations have been immaterial.

Item 7A. ***Quantitative and Qualitative Disclosures about Market Risk***

Market risk is the risk of loss from adverse changes in market prices and rates. Our primary market risks include risks related to interest rates and foreign currency exchange rates.

Interest Rate Risk

As of December 31, 2010, we had outstanding total indebtedness of approximately $108.7 million, including capital lease obligations. Of that indebtedness, approximately $103.3 million accrues interest under rates that fluctuate based upon market rates plus an applicable margin. As of December 31, 2010, the $103.3 million in term loan indebtedness outstanding under the Credit Facility accrues interest using LIBOR-based interest rate of 3.8% per annum. The average effective interest rate for the quarter ended December 31, 2010 under the LIBOR-based rates for the term loan indebtedness was 4.2%. Each 100 basis point increase in the interest rate would have the effect of increasing the annual amount of interest to be paid by approximately $1.0 million.

As our outstanding term loan facility and any borrowings under the revolving credit facility are subject to variable interest rates, we are subject to interest rate risk. We are therefore vulnerable to changes in three-month LIBOR interest rates. We use a derivative financial instrument (interest rate caps), to manage our exposure to interest rate risks related to the floating rate of our term loan facility. We do not use derivatives for trading or speculative purposes and only enter into contracts with major financial institutions based on their credit rating and other factors. We have

entered into an interest rate cap agreement for our term loan facility with an initial notional amount of $103.3 million and with a LIBOR cap of 2.0%. At December 31, 2010, the three-month LIBOR rate applicable to us was 0.30% thereby making the cap for the term loan facility out-of-the-money. Subject to the cap, as of December 31, 2010, an increase in market rates of interest

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by 0.125% would have increased our annual interest expense related to the term loan facility by $0.1 million, and a decrease in market interest rates by 0.125% would have decreased our annual interest expense related to the term loan facility by $0.1 million.

Foreign Currency Exchange Rate Risk

Our operations are conducted in various countries around the world, and we receive revenue from these operations in a number of different currencies with the most significant of our international operations using British pounds sterling. As such, our earnings are subject to movements in foreign currency exchange rates when transactions are denominated in currencies other than the U.S. dollar, which is our functional currency, or the functional currency of many of our subsidiaries, which is not necessarily the U.S. dollar. To the extent that transactions of these subsidiaries are settled in currencies other than the U.S. dollar, a devaluation of these currencies versus the U.S. dollar could reduce the contribution from these subsidiaries to our consolidated results of operations as reported in U.S. dollars.

Through our subsidiaries, we operate in a wide variety of jurisdictions, including United Kingdom, China, Canada, the Netherlands, Brazil, Russia, the United Arab Emirates, and other countries. Our financial results may be affected by changes in foreign currency exchange rates. Our consolidated balance sheet at December 31, 2010 reflected approximately $15.6 million of net working capital related to our foreign subsidiaries. A majority of our foreign net working capital is within the United Kingdom. The subsidiaries in those countries receive their income and pay their expenses primarily in their local currencies. To the extent that transactions of these subsidiaries are settled in the local currencies, a devaluation of these currencies versus the U.S. dollar could reduce the contribution from these subsidiaries to our consolidated results of operations as reported in U.S. dollars.

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

The financial statements required by this item begin at page F-1 hereof.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

Not applicable.

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

(a) Evaluation of Disclosure Controls and Procedures. Disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file with or submit to the SEC under the Exchange Act is recorded, processed, summarized and reported within the time period specified by the SEC s rules and forms. Disclosure controls and procedures, include, without limitation, controls and procedures designed to ensure that information required to be disclosed under the Exchange Act is accumulated and communicated to management, including the principal executive officer and the principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Our management carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of December 31, 2010. Based upon that evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2010.

(b) Management s Report on Internal Control Over Financial Reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the

reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that:

(i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company;

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(ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of our management and directors; and

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

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

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we assessed the effectiveness of our internal control over financial reporting as of December 31, 2010 based upon criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based upon their assessment, management concluded that the internal control over financial reporting was effective as of December 31, 2010.

The independent registered public accounting firm that has also audited the Company s consolidated financial statements included in this Annual Report on Form 10-K has issued an audit report on our internal control over financial reporting. This report appears below.

(c) Changes in Internal Control over Financial Reporting. There was not any change in our internal control over financial reporting that occurred during the three months ended December 31, 2010, which has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of ION Geophysical Corporation and Subsidiaries

We have audited ION Geophysical Corporation and subsidiaries (the Company) internal control over financial reporting as of December 31, 2010, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). The Company s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company s internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company s assets that could have a material effect on the financial statements.

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

In our opinion, ION Geophysical Corporation and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of ION Geophysical Corporation and subsidiaries as of December 31, 2010 and 2009 and the related consolidated statements of operations, cash flows, stockholders equity and comprehensive income (loss) for each of the three years in the period ended December 31, 2010 of ION Geophysical Corporation and subsidiaries and our report dated February 24, 2011 expressed an unqualified opinion thereon.

Ernst and Young LLP

Houston, Texas
February 24, 2011

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Item 9B. ***Other Information***

Not applicable.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance***

Reference is made to the information appearing in the definitive proxy statement, under *Item 1 Election of Directors,* for our annual meeting of stockholders to be held on May 27, 2011 (the 2011 Proxy Statement) to be filed with the SEC with respect to Directors, Executive Officers and Corporate Governance, which is incorporated herein by reference and made a part hereof in response to the information required by Item 10.

Item 11. ***Executive Compensation***

Reference is made to the information appearing in the 2011 Proxy Statement, under *Executive Compensation,* to be filed with the SEC with respect to Executive Compensation, which is incorporated herein by reference and made a part hereof in response to the information required by Item 11.

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

Reference is made to the information appearing in the 2011 Proxy Statement, under *Item 1 Ownership of Equity Securities of ION* and *Equity Compensation Plan Information,* to be filed with the SEC with respect to Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters, which is incorporated herein by reference and made a part hereof in response to the information required by Item 12.

Item 13. ***Certain Relationships and Related Transactions, and Director Independence***

Reference is made to the information appearing in the 2011 Proxy Statement, under *Item 1 Certain Transactions and Relationships,* to be filed with the SEC with respect to Certain Relationships and Related Transactions and Director Independence, which is incorporated herein by reference and made a part hereof in response to the information required by Item 13.

Item 14. ***Principal Accountant Fees and Services***

Reference is made to the information appearing in the 2011 Proxy Statement, under *Principal Auditor Fees and Services,* to be filed with the SEC with respect to Principal Accountant Fees and Services, which is incorporated herein by reference and made a part hereof in response to the information required by Item 14.

PART IV

Item 15. ***Exhibits and Financial Statement Schedules***

(a) *List of Documents Filed*

(1) *Financial Statements*

The financial statements filed as part of this report are listed in the Index to Consolidated Financial Statements on page F-1 hereof.

(2) *Financial Statement Schedules*

The following financial statement schedule is listed in the Index to Consolidated Financial Statements on page F-1 hereof, and is included as part of this Annual Report on Form 10-K:

Schedule II Valuation and Qualifying Accounts

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All other schedules are omitted because they are not applicable or the requested information is shown in the financial statements or noted therein.

(3) Exhibits

3.1	Restated Certificate of Incorporation dated September 24, 2007 filed on September 24, 2007 as Exhibit 3.4 to the Company s Current Report on Form 8-K and incorporated herein by reference.
3.2	Amended and Restated Bylaws of ION Geophysical Corporation filed on September 24, 2007 as Exhibit 3.5 to the Company s Current Report on Form 8-K and incorporated herein by reference.
3.3	Certificate of Ownership and Merger merging ION Geophysical Corporation with and into Input/Output, Inc. dated September 21, 2007, filed on September 24, 2007 as Exhibit 3.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.1	Certificate of Rights and Designations of Series D-1 Cumulative Convertible Preferred Stock, dated February 16, 2005 and filed on February 17, 2005 as Exhibit 3.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.2	Certificate of Elimination of Series B Preferred Stock dated September 24, 2007, filed on September 24, 2007 as Exhibit 3.2 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.3	Certificate of Elimination of Series C Preferred Stock dated September 24, 2007, filed on September 24, 2007 as Exhibit 3.3 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.4	Certificate of Designation of Series D-2 Cumulative Convertible Preferred Stock dated December 6, 2007, filed on December 6, 2007 as Exhibit 3.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.5	Certificate of Designations of Series A Junior Participating Preferred Stock of ION Geophysical Corporation effective as of December 31, 2008, filed on January 5, 2009 as Exhibit 3.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.6	Form of Senior Indenture, filed on December 19, 2008 as Exhibit 4.3 to the Company s Registration Statement on Form S-3 (Registration No. 333-156362) and incorporated herein by reference.
4.7	Form of Senior Note, filed on December 19, 2008 as Exhibit 4.4 to the Company s Registration Statement on Form S-3 (Registration No. 333-156362) and incorporated herein by reference.
4.8	Form of Subordinated Indenture, filed on December 19, 2008 as Exhibit 4.5 to the Company s Registration Statement on Form S-3 (Registration No. 333-156362) and incorporated herein by reference.
4.9	Form of Subordinated Note, filed on December 19, 2008 as Exhibit 4.6 to the Company s Registration Statement on Form S-3 (Registration No. 333-156362) and incorporated herein by reference.
**10.1	Amended and Restated 1990 Stock Option Plan, filed on June 9, 1999 as Exhibit 4.2 to the Company s Registration Statement on Form S-8 (Registration No. 333-80299), and incorporated herein by reference.
10.2	Office and Industrial/Commercial Lease dated June 2005 by and between Stafford Office Park II, LP as Landlord and Input/Output, Inc. as Tenant, filed on March 31, 2006 as Exhibit 10.2 to the Company s Annual Report on Form 10-K for the year ended December 31, 2005, and incorporated herein by reference.
10.3	Office and Industrial/Commercial Lease dated June 2005 by and between Stafford Office Park District as Landlord and Input/Output, Inc. as Tenant, filed on March 31, 2006 as Exhibit 10.3 to the Company s Annual Report on Form 10-K for the year ended December 31, 2005, and incorporated herein by reference.

**10.4	Input/Output, Inc. Amended and Restated 1996 Non-Employee Director Stock Option Plan, filed on June 9, 1999 as Exhibit 4.3 to the Company s Registration Statement on Form S-8 (Registration No. 333-80299), and incorporated herein by reference.

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**10.5	Amendment No. 1 to the Input/Output, Inc. Amended and Restated 1996 Non-Employee Director Stock Option Plan dated September 13, 1999 filed on November 14, 1999 as Exhibit 10.4 to the Company s Quarterly Report on Form 10-Q for the fiscal quarter ended August 31, 1999 and incorporated herein by reference.
**10.6	Employment Agreement dated effective as of May 22, 2006 between Input/Output, Inc. and R. Brian Hanson, filed on May 1, 2006 as Exhibit 10.1 to the Company s Form 8-K, and incorporated herein by reference.
**10.7	First Amendment to Employment Agreement dated as of August 20, 2007 between Input/Output, Inc. and R. Brian Hanson, filed on August 21, 2007 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.8	Second Amendment to Employment Agreement, dated as of December 1, 2008, between ION Geophysical Corporation and R. Brian Hanson, filed on January 29, 2009 as Exhibit 10.2 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.9	Input/Output, Inc. Employee Stock Purchase Plan, filed on March 28, 1997 as Exhibit 4.4 to the Company s Registration Statement on Form S-8 (Registration No. 333-24125), and incorporated herein by reference.
**10.10	Fifth Amended and Restated 2004 Long-Term Incentive Plan, filed as Appendix A to the definitive proxy statement for the 2010 Annual Meeting of Stockholders of ION Geophysical Corporation, filed on April 21, 2010, and incorporated herein by reference.
10.11	Registration Rights Agreement dated as of November 16, 1998, by and among the Company and The Laitram Corporation, filed on March 12, 2004 as Exhibit 10.7 to the Company s Annual Report on Form 10-K for the year ended December 31, 2003, and incorporated herein by reference.
**10.12	Input/Output, Inc. 1998 Restricted Stock Plan dated as of June 1, 1998, filed on June 9, 1999 as Exhibit 4.7 to the Company s Registration Statement on S-8 (Registration No. 333-80297), and incorporated herein by reference.
**10.13	Input/Output Inc. Non-qualified Deferred Compensation Plan, filed on April 1, 2002 as Exhibit 10.14 to the Company s Annual Report on Form 10-K for the year ended December 31, 2001, and incorporated herein by reference.
**10.14	Input/Output, Inc. 2000 Restricted Stock Plan, effective as of March 13, 2000, filed on August 17, 2000 as Exhibit 10.27 to the Company s Annual Report on Form 10-K for the fiscal year ended May 31, 2000, and incorporated herein by reference.
**10.15	Input/Output, Inc. 2000 Long-Term Incentive Plan, filed on November 6, 2000 as Exhibit 4.7 to the Company s Registration Statement on Form S-8 (Registration No. 333-49382), and incorporated by reference herein.
**10.16	Employment Agreement dated effective as of March 31, 2003, by and between the Company and Robert P. Peebler, filed on March 31, 2003 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.17	First Amendment to Employment Agreement dated September 6, 2006, between Input/Output, Inc. and Robert P. Peebler, filed on September 7, 2006, as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.18	Second Amendment to Employment Agreement dated February 16, 2007, between Input/Output, Inc. and Robert P. Peebler, filed on February 16, 2007 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.19	Third Amendment to Employment Agreement dated as of August 20, 2007 between Input/Output, Inc. and Robert P. Peebler, filed on August 21, 2007 as Exhibit 10.2 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.20	Fourth Amendment to Employment Agreement, dated as of January 26, 2009, between ION Geophysical Corporation and Robert P. Peebler, filed on January 29, 2009 as Exhibit 10.1 to the

	Company s Current Report on Form 8-K and incorporated herein by reference.
**10.21	Employment Agreement dated effective as of June 15, 2004, by and between the Company and David L. Roland, filed on August 9, 2004 as Exhibit 10.5 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, and incorporated herein by reference.

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**10.22	Employment Agreement, dated as of December 1, 2008, between ION Geophysical Corporation and James R. Hollis, filed on January 29, 2009 as Exhibit 10.3 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.23	GX Technology Corporation Employee Stock Option Plan, filed on August 9, 2004 as Exhibit 10.1 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, and incorporated herein by reference.
10.24	Concept Systems Holdings Limited Share Acquisition Agreement dated February 23, 2004, filed on March 5, 2004 as Exhibit 2.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
10.25	Registration Rights Agreement by and between ION Geophysical Corporation and 1236929 Alberta Ltd. dated September 18, 2008, filed on November 7, 2008 as Exhibit 10.1 to the Company s Quarterly Report on Form 10-Q and incorporated herein by reference.
**10.26	Form of Employment Inducement Stock Option Agreement for the Input/Output, Inc. Concept Systems Employment Inducement Stock Option Program, filed on July 27, 2004 as Exhibit 4.1 to the Company s Registration Statement on Form S-8 (Reg. No. 333-117716), and incorporated herein by reference.
**10.27	Form of Employee Stock Option Award Agreement for ARAM Systems Employee Inducement Stock Option Program, filed on November 14, 2008 as Exhibit 4.4 to the Company s Registration Statement on Form S-8 (Registration No. 333-155378) and incorporated herein by reference.
10.28	Agreement dated as of February 15, 2005, between Input/Output, Inc. and Fletcher International, Ltd., filed on February 17, 2005 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.29	First Amendment to Agreement, dated as of May 6, 2005, between the Company and Fletcher International, Ltd., filed on May 10, 2005 as Exhibit 10.2 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.30	Input/Output, Inc. 2003 Stock Option Plan, dated March 27, 2003, filed as Appendix B of the Company s definitive proxy statement filed with the SEC on April 30, 2003, and incorporated herein by reference.
10.31	Amended and Restated Credit Agreement dated as of July 3, 2008, by and among ION Geophysical Corporation, ION International S.À R.L., HSBC Bank USA, N.A., as administrative agent, joint lead arranger and joint bookrunner, ABN AMRO Incorporated, as joint lead arranger and joint bookrunner, and CitiBank, N.A., as syndication agent, filed on July 8, 2008 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.32	First Amendment to Amended and Restated Credit Agreement and Domestic Security Agreement, dated as of September 17, 2008, by and among ION Geophysical Corporation, ION International S.À R.L., HSBC Bank USA, N.A., as administrative agent, joint lead arranger and joint bookrunner, ABN AMRO Incorporated, as joint lead arranger and joint bookrunner, and CitiBank, N.A., as syndication agent, filed on September 23, 2008 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.33	Third Amendment to Amended and Restated Credit Agreement dated as of December 29, 2008, by and among ION Geophysical Corporation, ION International S.À R.L., the Guarantors and Lenders party thereto and HSBC Bank USA, N.A., as administrative agent, filed on January 5, 2009 as Exhibit 10.3 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.34	Fourth Amendment to Amended and Restated Credit Agreement and Foreign Security Agreement, Limited Waiver and Release dated as of December 30, 2008, by and among ION Geophysical Corporation, ION International S.À R.L., the Guarantors and Lenders party thereto and HSBC Bank USA, N.A., as administrative agent, filed on January 5, 2009 as Exhibit 10.4 to the Company s Current Report on Form 8-K and incorporated herein by reference.

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10.35	Fifth Amendment to Amended and Restated Credit Agreement dated effective as of June 1, 2009 by and among ION Geophysical Corporation, ION International S.à r.l., certain other foreign and domestic subsidiaries of the ION Geophysical Corporation, HSBC Bank USA, N.A., as administrative agent, joint lead arranger and joint bookrunner, ABN AMRO Incorporated, as joint lead arranger and joint bookrunner, Citibank, N.A., as syndication agent, and the lenders party thereto, filed on August 6, 2009 as Exhibit 10.1 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
10.36	Sixth Amendment and Waiver to Amended and Restated Credit Agreement dated effective as of October 23, 2009 by and among ION Geophysical Corporation, ION International S.À R.L., the Guarantors and Lenders party thereto and HSBC Bank USA, N.A., as administrative agent filed on March 1, 2010 as Exhibit 10.36 to the Company s Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.
**10.37	Form of Employment Inducement Stock Option Agreement for the Input/Output, Inc. GX Technology Corporation Employment Inducement Stock Option Program, filed on April 4, 2005 as Exhibit 4.1 to the Company s Registration Statement on Form S-8 (Reg. No. 333-123831), and incorporated herein by reference.
**10.38	First Amendment to Consulting Services Agreement dated as of January 5, 2007, by and between GX Technology Corporation and Michael K. Lambert, filed on January 8, 2007 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.39	Letter agreement dated October 19, 2006, by and between the Company and Michael K. Lambert, filed on October 24, 2006 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.40	Severance Agreement dated as of December 1, 2008, between ION Geophysical Corporation and Charles J. Ledet, filed on December 5, 2008 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.41	Consulting Agreement dated as of December 1, 2008, between ION Geophysical Corporation and Charles J. Ledet, filed on December 5, 2008 as Exhibit 10.2 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.42	Rights Agreement, dated as of December 30, 2008, between ION Geophysical Corporation and Computershare Trust Company, N.A., as Rights Agent, filed as Exhibit 4.1 to the Company s Form 8-A (Registration No. 001-12691) and incorporated herein by reference.
**10.43	ION Stock Appreciation Rights Plan dated November 17, 2008, filed as Exhibit 10.47 to the Company s Annual Report on Form 10-K for the year ended December 31, 2008, and incorporated herein by reference.
10.44	Canadian Master Loan and Security Agreement dated as of June 29, 2009 by and among ICON ION, LLC, as lender, ION Geophysical Corporation and ARAM Rentals Corporation, a Nova Scotia corporation, filed on August 6, 2009 as Exhibit 10.3 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
10.45	Master Loan and Security Agreement (U.S.) dated as of June 29, 2009 by and among ICON ION, LLC, as lender, ION Geophysical Corporation and ARAM Seismic Rentals, Inc., a Texas corporation, filed on August 6, 2009 as Exhibit 10.4 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
10.46	Term Sheet dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation filed on March 1, 2010 as Exhibit 10.52 to the Company s Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.
10.47	Warrant Issuance Agreement dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation filed on March 1, 2010 as

	Exhibit 10.53 to the Company s Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.
10.48	Registration Rights Agreement dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation filed on March 1, 2010 as Exhibit 10.54 to the Company s Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.

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10.49	Stock Purchase Agreement dated as of March 19, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
10.50	Investor Rights Agreement dated as of March 25, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010 as Exhibit 10.2 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
10.51	Share Purchase Agreement dated as of March 24, 2010, by and among ION Geophysical Corporation, INOVA Geophysical Equipment Limited and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010 as Exhibit 10.3 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
10.52	Joint Venture Agreement dated as of March 24, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010 as Exhibit 10.4 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
10.53	Credit Agreement dated as of March 25, 2010, by and among ION Geophysical Corporation, ION International S.À R.L. and China Merchants Bank Co., Ltd., New York Branch, as administrative agent and lender, filed on March 31, 2010 as Exhibit 10.5 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.54	Fifth Amendment to Employment Agreement dated June 1, 2010, between ION Geophysical Corporation and Robert P. Peebler, filed on June 1, 2010 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
*21.1	Subsidiaries of the Company.
*23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
*24.1	The Power of Attorney is set forth on the signature page hereof.
*31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a).
*31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a).
*32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. §1350.
*32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. §1350.

* Filed herewith.

** Management contract or compensatory plan or arrangement.

(b) *Exhibits required by Item 601 of Regulation S-K.*

Reference is made to subparagraph (a) (3) of this Item 15, which is incorporated herein by reference.

(c) *Not applicable.*

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Houston, State of Texas, on February 24, 2011.

ION GEOPHYSICAL CORPORATION

By /s/ R. Brian Hanson

R. Brian Hanson
Executive Vice President and Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert P. Peebler and David L. Roland and each of them, as his or her true and lawful attorneys-in-fact and agents with full power of substitution and re-substitution for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all documents relating to the Annual Report on Form 10-K for the year ended December 31, 2010, including any and all amendments and supplements thereto, and to file the same with all exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully as to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or their or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Name	Capacities	Date
/s/ ROBERT P. PEEBLER Robert P. Peebler	Chief Executive Officer and Director (Principal Executive Officer)	February 24, 2011
/s/ R. BRIAN HANSON R. Brian Hanson	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 24, 2011
/s/ MICHAEL L. MORRISON Michael L. Morrison	Vice President and Corporate Controller (Principal Accounting Officer)	February 24, 2011
/s/ JAMES M. LAPEYRE, JR.	Chairman of the Board of Directors and Director	February 24, 2011

James M. Lapeyre, Jr.		
/s/ DAVID H. BARR	Director	February 24, 2011
David H. Barr		

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Name	Capacities	Date
/s/ HAO HUIMIN Hao Huimin	Director	February 24, 2011
/s/ MICHAEL C. JENNINGS Michael C. Jennings	Director	February 24, 2011
/s/ FRANKLIN MYERS Franklin Myers	Director	February 24, 2011
/s/ S. JAMES NELSON, JR. S. James Nelson, Jr.	Director	February 24, 2011
/s/ JOHN N. SEITZ John N. Seitz	Director	February 24, 2011

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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ION Geophysical Corporation and Subsidiaries:	
Report of Independent Registered Public Accounting Firm	F-2
Consolidated Balance Sheets December 31, 2010 and 2009	F-3
Consolidated Statements of Operations Years ended December 31, 2010, 2009, and 2008	F-4
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All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of ION Geophysical Corporation and Subsidiaries

We have audited the accompanying consolidated balance sheets of ION Geophysical Corporation and subsidiaries as of December 31, 2010 and 2009, and the related consolidated statements of operations, cash flows, stockholders equity and comprehensive income (loss) for each of the three years in the period ended December 31, 2010. Our audits also included the financial statement schedule listed in the Index at Item 15(a). These financial statements and schedule are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of ION Geophysical Corporation and subsidiaries at December 31, 2010 and 2009, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2010, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), ION Geophysical Corporation and subsidiaries internal control over financial reporting as of December 31, 2010, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 24, 2011, expressed an unqualified opinion thereon.

Ernst and Young LLP

Houston, Texas
February 24, 2011

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ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2010	2009
	(In thousands, except share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 84,419	$ 16,217
Accounts receivable, net	77,576	111,046
Unbilled receivables	70,590	21,655
Current portion notes receivable, net		13,367
Inventories	66,882	202,601
Deferred income tax asset		6,001
Prepaid expenses and other current assets	13,165	24,614
Total current assets	312,632	395,501
Deferred income tax asset	8,998	26,422
Property, plant and equipment, net	20,145	78,555
Multi-client data library, net	112,620	130,705
Investment in INOVA Geophysical	95,173	
Goodwill	51,333	52,052
Intangible assets, net	20,317	61,766
Other assets	3,224	3,185
Total assets	$ 624,442	$ 748,186
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities:		
Notes payable and current maturities of long-term debt	$ 6,073	$ 271,132
Accounts payable	30,940	40,189
Accrued expenses	54,799	65,893
Accrued multi-client data library royalties	18,667	18,714
Fair value of warrant		44,789
Deferred revenue	22,887	13,802
Total current liabilities	133,366	454,519
Long-term debt, net of current maturities	102,587	6,249
Non-current deferred income tax liability	688	1,262
Other long-term liabilities	7,354	3,688
Total liabilities	243,995	465,718

Commitments and contingencies		
Stockholders equity:		
Cumulative convertible preferred stock	27,000	68,786
Common stock, $0.01 par value; authorized 200,000,000 shares; outstanding 152,870,679 and 118,688,702 shares at December 31, 2010 and 2009, respectively, net of treasury stock	1,529	1,187
Additional paid-in capital	822,399	666,928
Accumulated deficit	(448,386)	(411,548)
Accumulated other comprehensive income (loss)	(15,530)	(36,320)
Treasury stock, at cost, 849,539 shares at both December 31, 2010 and 2009	(6,565)	(6,565)
Total stockholders equity	380,447	282,468
Total liabilities and stockholders equity	$ 624,442	$ 748,186

See accompanying Notes to Consolidated Financial Statements.

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ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2010	2009	2008
	(In thousands, except per share data)		
Product revenues	$ 165,202	$ 237,664	$ 417,511
Service revenues	279,120	182,117	262,012
Total net revenues	444,322	419,781	679,523
Cost of products	94,658	165,923	289,795
Cost of services	183,931	121,720	181,980
Gross profit	165,733	132,138	207,748
Operating expenses:			
Research, development and engineering	25,227	44,855	49,541
Marketing and sales	30,405	34,945	47,854
General and administrative	57,254	72,510	70,893
Impairment of goodwill and intangible assets		38,044	252,283
Total operating expenses	112,886	190,354	420,571
Income (loss) from operations	52,847	(58,216)	(212,823)
Interest expense, net, including an $18.8 million write-off of debt discount and debt issuance costs in 2010	(30,770)	(33,950)	(11,284)
Loss on disposition of land division	(38,115)		
Fair value adjustment of warrant	12,788	(29,401)	
Equity in losses of INOVA Geophysical	(23,724)		
Gain on legal settlement	24,500		
Impairment of cost method investments	(7,650)	(4,454)	
Other income (expense)	228	(4,023)	4,200
Income (loss) before income taxes	(9,896)	(130,044)	(219,907)
Income tax expense (benefit)	26,942	(19,985)	1,131
Net loss	(36,838)	(110,059)	(221,038)
Preferred stock dividends	1,936	3,500	3,889
Preferred stock beneficial conversion charge			68,786
Net loss applicable to common shares	$ (38,774)	$ (113,559)	$ (293,713)
Net loss per share:			

Basic	$ (0.27)	$ (1.03)	$ (3.06)
Diluted	$ (0.27)	$ (1.03)	$ (3.06)
Weighted average number of common shares outstanding:			
Basic	144,278	110,516	95,887
Diluted	144,278	110,516	95,887

See accompanying Notes to Consolidated Financial Statements.

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ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31		
	2010	2009	2008
	(In thousands)		
Cash flows from operating activities:			
Net loss	$ (36,838)	$ (110,059)	$ (221,038)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization (other than multi-client library)	24,795	47,911	33,052
Amortization of multi-client data library	85,940	48,449	80,532
Stock-based compensation expense related to stock options, nonvested stock, and employee stock purchases	8,147	12,671	8,306
Bad debt expense	1,689	3,528	4,852
Amortization of debt discount	8,656	6,732	816
Write-off of unamortized debt issuance costs	10,121		
Fair value adjustment of warrant	(12,788)	29,401	
Loss on disposition of land division	38,115		
Equity in losses of INOVA Geophysical	23,724		
Impairment of goodwill and intangible assets		38,044	252,283
Impairment of cost method investments	7,650	4,454	
Deferred income tax	22,207	(38,150)	(17,549)
Profit on sale of rental assets		(524)	(3,190)
Change in operating assets and liabilities:			
Accounts and notes receivable	7,826	41,936	37,673
Unbilled receivables	(48,935)	14,817	(14,084)
Inventories	(16,138)	18,582	(89,998)
Accounts payable, accrued expenses and accrued royalties	9,550	(72,140)	46,160
Deferred revenue	7,281	(4,188)	(6,088)
Other assets and liabilities	(7,634)	10,522	(12)
Net cash provided by operating activities	133,368	51,986	111,715
Cash flows from investing activities:			
Purchase of property, plant and equipment	(7,372)	(2,966)	(17,539)
Investment in multi-client data library	(64,426)	(89,635)	(110,362)
Proceeds from disposition of land division, net of fees paid	99,790		
Business acquisition, net of cash of acquired business			(232,158)
Proceeds from the sale of fixed assets and rental equipment		1,972	5,434
Other investing activities	(500)	(1,009)	
Net cash provided by (used in) investing activities	27,492	(91,638)	(354,625)

Cash flows from financing activities:			
Borrowings under revolving line of credit	104,000	77,000	235,000
Repayments under revolving line of credit	(193,429)	(25,000)	(169,000)
Net proceeds from issuance of debt	105,695	19,218	160,308
Net proceeds from issuance of stock	38,039	38,220	
Payments on notes payable and long-term debt	(145,558)	(81,517)	(18,082)
Costs associated with debt amendments		(4,630)	
Issuance of preferred stock			35,000
Payment of preferred dividends	(1,936)	(3,500)	(3,889)
Proceeds from employee stock purchases and exercise of stock options	1,071	283	6,284
Restricted stock cancelled for employee minimum income taxes	(612)	(345)	(1,660)
Other financing activities			328
Net cash (used in) provided by financing activities	(92,730)	19,729	244,289
Effect of change in foreign currency exchange rates on cash and cash equivalents	72	968	(2,616)
Net increase (decrease) in cash and cash equivalents	68,202	(18,955)	(1,237)
Cash and cash equivalents at beginning of period	16,217	35,172	36,409
Cash and cash equivalents at end of period	$ 84,419	$ 16,217	$ 35,172
Non-cash items from investing and financing activities:			
Expiration of BGP Warrant	$ 32,001	$	$
Conversion of BGP Domestic Convertible Note to equity	28,571		
Investment in INOVA Geophysical	119,000		
Exchange of Reservoir Exploration Technology receivables into shares	9,516		
Investment in multi-client data library financed through trade payables	3,429		
Transfer of inventory to rental equipment	3,606	48,560	
Issuance of stock for ARAM acquisition			48,958
Issuance of seller notes for ARAM acquisition			45,000
Supplemental disclosure of cash flow information:			
Interest paid	$ 11,798	$ 24,051	$ 5,251
Income taxes paid	7,263	22,184	14,894

See accompanying Notes to Consolidated Financial Statements.

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ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY AND COMPREHENSIVE INCOME (LOSS)

	Cumulative Convertible Preferred Stock		Common Stock		Additional Paid - In	Accumulated	Accumulated Other Comprehensive Income	Treasury	To Stockh
	Shares	Amount	Shares	Amount	Capital	Deficit	(Loss)	Stock	Eq
at January 1,		$	93,847,608	$ 948	$ 556,867	$ (80,451)	$ 5,460	$ (6,584)	$ 4
hensive income									
						(221,038)			(22
ion adjustment							(61,319)		(
mprehensive									
									(28
d stock									
ds					(3,889)				
fication of									
d stock to									
	70,000	68,786							
ased									
sation expense					8,306				
e of treasury									
			(2,745)					(39)	
e of stock for									
acquisition			3,629,211	36	48,922				4
e of stock									
			656,166	6	4,842				
of restricted									
its/awards			550,083	5	(5)				
ed stock									
d for employee									
m income taxes			(101,991)		(1,660)				
e of stock for									
P			109,943	1	1,474				
ion of 5.5%									
ble senior notes			925,926	9	3,996				
efits from									
ased									
sation					271				

e of treasury									
			7,725		65			61	
quity									
ents				(9)	9				
at									
er 31, 2008	70,000	68,786	99,621,926	996	619,198	(301,489)	(55,859)	(6,562)	32
hensive income									
						(110,059)			(1
ion adjustment							19,539		
mprehensive									
									(9
d stock									
ds					(3,500)				
ased									
sation expense					12,671				
e of treasury									
			(1,117)					(3)	
e of stock			18,500,000	185	38,035				3
e of stock									
			9,837		21				
of restricted									
its/awards			528,284	5	(5)				
ed stock									
d for employee									
m income taxes			(79,878)		(99)				
e of stock for									
P			109,650	1	263				
efits from									
ased									
sation					344				
at									
er 31, 2009	70,000	68,786	118,688,702	1,187	666,928	(411,548)	(36,320)	(6,565)	28
hensive income									
						(36,838)			(3
ion adjustment							(266)		
in fair value of									
e cash flow									
net of taxes)							(60)		
nterest in									
Geophysical s									
mprehensive									
							(103)		
mprehensive									
									(3
							21,219		2

ulated										
on adjustments										
zed through										
s upon										
ion of land										
d stock										
ds						(1,936)				
ased										
sation expense						8,147				
ation of stock										
(disposed of										
ision)						1,713				
e of stock to										
			23,789,536	238	105,406					10
e of stock										
			323,610	3	1,068					
of restricted										
its/awards			486,168	5	(5)					
ed stock										
d for employee										
m income taxes			(76,568)	(1)	(611)					
sion of										
ive convertible										
d stock	(43,000)	(41,786)	9,659,231	97	41,689					
at										
er 31, 2010	27,000	$ 27,000	152,870,679	$ 1,529	$ 822,399	$ (448,386)	$ (15,530)	$ (6,565)	$	38

See accompanying Notes to Consolidated Financial Statements.

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ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(1) Summary of Significant Accounting Policies

General Description and Principles of Consolidation

ION Geophysical Corporation and its wholly-owned subsidiaries offer a full suite of related products and services for seismic data acquisition and processing. The consolidated financial statements include the accounts of ION Geophysical Corporation and its wholly-owned subsidiaries (collectively referred to as the Company or ION). Inter-company balances and transactions have been eliminated. Certain reclassifications were made to previously reported amounts in the consolidated financial statements and notes thereto to make them consistent with the current presentation format.

Overview of Joint Venture with BGP

On March 25, 2010, the Company completed the disposition of most of its land seismic equipment businesses in connection with its formation of a land equipment joint venture with BGP, Inc., China National Petroleum Corporation (BGP). BGP is a subsidiary of China National Petroleum Corporation (CNPC) and is a leading global geophysical services contracting company. The resulting joint venture company, organized under the laws of the People s Republic of China, is named INOVA Geophysical Equipment Limited (INOVA Geophysical). BGP owns a 51% interest in INOVA Geophysical, and the Company owns a 49% interest. INOVA Geophysical is managed through a Board of Directors consisting of four members appointed by BGP and three members appointed by the Company. The results of operations and financial condition of the Company as of and for the twelve months ended December 31, 2010 have been materially affected by this disposition, which affects the comparability of certain of the financial information contained in this Annual Report on Form 10-K. The Company accounts for its 49% interest in INOVA Geophysical as an equity method investment. As provided by Accounting Standards Codification (ASC) 815 *Investments*, the Company accounts for its share of earnings in INOVA Geophysical on a one fiscal quarter lag basis. Thus, the Company s share of INOVA Geophysical s results for the period from March 26, 2010 through September 30, 2010, are included in the Company s financial results for the twelve months ended December 31, 2010. See further discussion regarding the summarized financial information of INOVA Geophysical at Note 3 *Equity Method Investment in INOVA Geophysical.*

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates are made at discrete points in time based on relevant market information. These estimates may be subjective in nature and involve uncertainties and matters of judgment and, therefore, cannot be determined with precision. Areas involving significant estimates include, but are not limited to, accounts and unbilled receivables, inventory valuation, sales forecasts related to multi-client data libraries, goodwill and intangible asset valuation and deferred taxes. Actual results could materially differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. At December 31, 2010 and 2009, there was $2.5 million and $1.5 million, respectively, of short-term restricted cash used to secure standby and commercial letters of credit, which is included within Other Current Assets.

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Accounts and Unbilled Receivables

Accounts and unbilled receivables are recorded at cost, less the related allowance for doubtful accounts. The Company considers current information and events regarding the customers ability to repay their obligations, such as the length of time the receivable balance is outstanding, the customers credit worthiness and historical experience. Unbilled receivables relate to revenues recognized on multi-client surveys and imaging services on a proportionate basis and on licensing of multi-client data libraries for which invoices have not yet been presented to the customer.

Inventories

Inventories are stated at the lower of cost (primarily first-in, first-out method) or market. The Company provides reserves for estimated obsolescence or excess inventory equal to the difference between cost of inventory and its estimated market value based upon assumptions about future demand for the Company s products and market conditions.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation expense is provided straight-line over the following estimated useful lives:

	Years
Machinery and equipment	3-7
Buildings	5-25
Rental equipment	2-5
Leased equipment and other	1-10

Expenditures for renewals and betterments are capitalized; repairs and maintenance are charged to expense as incurred. The cost and accumulated depreciation of assets sold or otherwise disposed of are removed from the accounts and any gain or loss is reflected in operating expenses.

The Company evaluates the recoverability of long-lived assets, including property, plant and equipment, when indicators of impairment exist, relying on a number of factors including operating results, business plans, economic projections, and anticipated future cash flows. Impairment in the carrying value of an asset held for use is recognized whenever anticipated future cash flows (undiscounted) from an asset are estimated to be less than its carrying value. The amount of the impairment recognized is the difference between the carrying value of the asset and its fair value. There were no significant impairment charges with respect to the Company s property, plant and equipment during 2010, 2009 and 2008.

Multi-Client Data Library

The multi-client data library consists of seismic surveys that are offered for licensing to customers on a non-exclusive basis. The capitalized costs include costs paid to third parties for the acquisition of data and related activities associated with the data creation activity and direct internal processing costs, such as salaries, benefits, computer-related expenses, and other costs incurred for seismic data project design and management. For 2010, 2009, and 2008, the Company capitalized, as part of its multi-client data library, $2.8 million, $3.8 million, and $5.4 million, respectively, of direct internal processing costs. At December 31, 2010 and 2009, multi-client data library costs and

accumulated amortization consisted of the following:

	December 31, 2010	December 31, 2009
Gross costs of multi-client data creation	$ 405,371	$ 337,516
Less accumulated amortization	(292,751)	(206,811)
Total	$ 112,620	$ 130,705

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The Company s method of amortizing the costs of an in-process multi-client data library (the period during which the seismic data is being acquired and/or processed) is the percentage of actual revenue to the total estimated revenue (or ultimate revenue) multiplied by the total cost of the project (the sales forecast method). Once a multi-client data library is complete, the survey data is considered off-the-shelf and the Company s method of amortization is then the greater of (i) the sales forecast method or (ii) the straight-line basis over a four-year period. The greater of the sales forecast method or the straight-line amortization policy is applied on a cumulative basis at the individual survey level. Under this policy, the Company first records amortization using the sales forecast method. The cumulative amortization recorded for each survey is then compared with the cumulative straight-line amortization. If the cumulative straight-line amortization is higher for any specific survey, additional amortization expense is recorded, resulting in accumulated amortization being equal to the cumulative straight-line amortization for such survey.

The Company estimates the ultimate revenue expected to be derived from a particular seismic data survey over its estimated useful economic life to determine the costs to amortize, if greater than straight-line amortization. That estimate is made by the Company at the project s initiation. For a completed multi-client survey, the Company reviews the estimate quarterly. If during any such review, the Company determines that the ultimate revenue for a survey is expected to be more or less than the original estimate of ultimate revenue for such survey, the Company decreases or increases (as the case may be) the amortization rate attributable to the future revenue from such survey. In addition, in connection with such reviews, the Company evaluates the recoverability of the multi-client data library, and, if required under ASC 360 *Accounting for the Impairment and Disposal of Long-Lived Assets,* (ASC 360) records an impairment charge with respect to such data. There were no significant impairment charges associated with the Company s multi-client data library during 2010, 2009 and 2008.

Computer Software

In February 2004, the Company acquired Concept Systems Holding Limited (Concept Systems). A portion of the purchase price was allocated to software available-for-sale and included within Other Assets. The capitalized costs of computer software are charged to costs of products in the period sold, using the greater of (i) the percentage of actual sales to the total estimated sales multiplied by the total costs of the software or (ii) a straight-line amortization rate equal to the software costs divided by its remaining estimated economic life. At December 31, 2010, the total costs of software were $11.3 million, less accumulated amortization of $11.1 million. Amortization expense was $1.6 million, $1.6 million and $2.0 million, respectively, for 2010, 2009 and 2008.

Cost Method Investments

Certain of the Company s investments are accounted for under the cost method. The Company s cost method investments that have quoted prices from active markets are classified as available-for-sale and revalued at each reporting date, with all unrealized gains or losses, net of taxes, included in accumulated other comprehensive income (outside of earnings) until realized or until such time that a decline in fair value below cost is deemed to be other-than-temporary. The Company s cost method investments for which quoted market prices are not available are recorded at cost and reviewed periodically if there are events or changes in circumstances that may have a significant adverse effect on the fair value of the investments. See further discussion below, including the impairment of a cost method investment, at Note 9 *Cost Method Investments.* The aggregate carrying amount of cost method investments was $2.4 million and $0.5 million at December 31, 2010 and 2009, respectively, and included within Other Current Assets or Other Assets, as applicable.

Equity Method Investments

The Company uses the equity method of accounting for investments in entities in which the Company has an ownership interest between 20% and 50% and exercises significant influence. Under this method, an investment is carried at the acquisition cost, plus the Company s equity in undistributed earnings or losses

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since acquisition, less distributions received. See further discussion regarding the Company s equity method investment in INOVA Geophysical at Note 3 *Equity Method Investment in INOVA Geophysical.*

Financial Instruments

Fair value estimates are made at discrete times based on relevant market information. These estimates may be subjective in nature and involve uncertainties and matters of significant judgment and, therefore, cannot be determined with precision. The Company believes that the carrying amount of its cash and cash equivalents, accounts and unbilled receivables, and accounts payable approximate the fair values at those dates. The fair market value of the Company s outstanding notes payable and long-term debt was determined to be $103.2 million at December 31, 2010 compared to a carrying value of $108.7 million. The difference in the carrying value and fair value of the Company s outstanding notes payable and long-term debt relates to the term loan under the Credit Facility. As described in Note 13 *Notes Payable, Long-term debt, Lease Obligations and Interest Rate Caps,* INOVA Geophysical is an additional guarantor under the Credit Agreement. The fair value of the term loan was calculated using an estimated interest rate for non-guaranteed debt.

Derivative Instruments (Interest Rate Caps)

The Company records all derivatives on the balance sheet at fair value. Derivatives used to hedge the exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. For derivatives designated as cash flow hedges, the effective portion of changes in the fair value of the derivative is initially reported in other comprehensive income (outside of earnings) and subsequently reclassified to earnings when the hedged transaction affects earnings, and the ineffective portion of changes in the fair value of the derivative is recognized directly in earnings.

The Company assesses the effectiveness of each hedging relationship under the hypothetical derivative method, which means that the Company compares the cumulative change in fair value of the actual cap to the cumulative change in fair value of a hypothetical cap having terms that exactly match the critical terms of the hedged transaction. For derivatives that do not qualify for hedge accounting or when hedge accounting is discontinued, the changes in fair value of the derivative instrument are recognized directly in earnings.

The Company s objective in using derivative instruments is to add stability to its interest expense and to manage its exposure to interest rate movements or other identified risks. To accomplish this objective, the Company is using interest rate caps, designated as cash flow hedges, which involve the receipt of fixed-rate payments in exchange for variable-rate amounts over the life of the agreement. See further discussion at Note 13 *Notes Payable, Long-term Debt, Lease Obligations and Interest Rate Caps.*

Additionally, in 2008, 2009 and 2010, the Company periodically entered into economic cash flow and fair value hedges designed to minimize the risks associated with exchange rate fluctuations. The impact to the financial statements is insignificant for all periods with any gains and losses included in the income statement.

Goodwill and Other Intangible Assets

Goodwill is allocated to reporting units, which are either the operating segment or one reporting level below the operating segment. For purposes of performing the impairment test for goodwill as required by ASC 350 *Intangibles Goodwill and Other,* (ASC 350) the Company established the following reporting units: Marine Systems, Sensor Geophone, Software, and Solutions. To determine the fair value of these reporting units, the Company uses a discounted future returns valuation method.

In accordance with ASC 350, the Company is required to evaluate the carrying value of its goodwill at least annually for impairment, or more frequently if facts and circumstances indicate that it is more likely than not impairment has occurred. The Company formally evaluates the carrying value of its goodwill for impairment as of December 31 for each of its reporting units. If the carrying value of a reporting unit of an entity that includes goodwill is determined to be more than the fair value of the reporting unit, there exists the possibility of impairment of goodwill. An impairment loss of goodwill is measured in two steps by first

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allocating the fair value of the reporting unit to net assets and liabilities including recorded and unrecorded other intangible assets to determine the implied carrying value of goodwill. The next step is to measure the difference between the carrying value of goodwill and the implied carrying value of goodwill, and, if the implied carrying value of goodwill is less than the carrying value of goodwill, an impairment loss is recorded equal to the difference. See further discussion, including the impairment of goodwill in 2008, below at Note 10 *Goodwill.*

The intangible assets other than goodwill relate to proprietary technology, patents, customer relationships and trade names that are amortized over the estimated periods of benefit (ranging from 4 to 20 years). Following the guidance of ASC 360, the Company reviews the carrying values of these intangible assets for impairment if events or changes in the facts and circumstances indicate that their carrying value may not be recoverable. Any impairment determined is recorded in the current period and is measured by comparing the fair value of the related asset to its carrying value. See further discussion, including the impairment of intangible assets in 2008 and 2009, below at Note 11 *Intangible Assets.*

Intangible assets amortized on a straight-line basis are:

	Estimated Useful Life (Years)
Proprietary technology	4-7
Patents	5-20
Trade names	5
Intellectual property rights	5

The Company amortizes its customer relationship intangible assets on an accelerated basis over a 15-year period, using the undiscounted cash flows of the initial valuation models. The Company uses an accelerated basis as these intangible assets were initially valued using an income approach, with an attrition rate that resulted in a pattern of declining cash flows over a 15-year period.

Fair Value Measurements

ASC 820-10, *Fair Value Measurements,* defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. This standard establishes a fair value hierarchy based on whether the inputs to valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company s own assumptions about the assumptions market participants would use, which are broken out into three levels. Level 1 inputs are quoted prices from active markets for identical assets and liabilities at the measurement date, while Level 2 inputs are inputs other than quoted prices that are observable, either directly or indirectly. Level 3 inputs are unobservable and relate to assets and liabilities whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques reflecting the Company s own assumptions and requiring significant management judgment.

Investment in INOVA Geophysical As part of the formation of INOVA Geophysical, the Company estimated the fair value of its 49% interest in INOVA Geophysical. The fair value was determined on a discounted cash flow basis based upon operating forecasts, which included assumptions about future market and economic conditions. The valuation utilized Level 3 inputs, and the main drivers in the calculation were INOVA Geophysical s operational five-year forecast, which included revenues, operating expenses and capital expenditures. The Company corroborated its discounted cash flow analysis with a fair value analysis of the cash and other assets contributed by BGP for its 51%

interest in INOVA Geophysical. On March 25, 2010, the Company recognized an asset of $119.0 million, which represented the fair value of 49% of INOVA Geophysical.

Goodwill and Intangible Assets In 2010, the Company performed a valuation of its goodwill and in 2009 and 2008 a valuation on both its goodwill and intangible asset balances. The valuations were performed using Level 3 inputs. The fair value of these assets was estimated using a discounted cash flow model, which included a variety of inputs. The key inputs for the model included the operational five-year forecast for the

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Company, the then-current market discount factor and the forecasted cash flows related to each intangible asset. The forecasted operational and cash flow amounts were determined using the current activity levels in the Company as well as the current and expected short-term market conditions. For further information, see Note 10 *Goodwill* and Note 11 *Intangible Assets.*

Cost Method Investments In 2010, the Company performed a fair value analysis of its available-for-sale investment in RXT based upon Level 1 inputs, utilizing quoted prices from active markets. In 2009, the Company performed a fair value analysis for its cost method investment for which quoted market prices were not available based on Level 3 inputs, utilizing current financial data and operational forecasts with the main drivers in the calculation being the investment s forecasted cash flows and its current obligations. For further information, see Note 9 *Cost Method Investments.*

Interest Rate Caps In 2010, the Company performed a valuation of its interest rate caps based on Level 2 inputs, such as interest rates and yield curves that are observable at commonly quoted intervals.

Warrant In October 2009, the Company issued to BGP a warrant (the Warrant), which had an initial fair value of $15.4 million. On December 31, 2009 and on March 25, 2010 (its termination date), the Warrant was re-valued at approximately $44.8 million and 32.0 million, respectively. The fair value of the Warrant was based on Level 2 inputs, using a Black-Scholes model. The key inputs for the Black-Scholes model included the current market price of the Company s common stock, the yield on the common stock dividend payments (0%), risk-free interest rates, the expected term (March 2010) and the Company stock s historical and implied volatility. For further information, see Note 2 *Formation of INOVA Geophysical and Related Financing Transactions.*

Revenue Recognition

The Company derives revenue from the sale of (i) acquisition systems and other seismic equipment within its Systems segment; (ii) multi-client surveys, licenses of off-the-shelf data libraries and imaging services within its Solutions segment; and (iii) navigation, survey and quality control software systems within its Software segment.

Acquisition Systems and Other Seismic Equipment For the sales of acquisition systems and other seismic equipment, the Company follows the requirements of ASC 605-10 *Revenue Recognition* and recognizes revenue when (a) evidence of an arrangement exists; (b) the price to the customer is fixed and determinable; (c) collectibility is reasonably assured; and (d) the acquisition system or other seismic equipment is delivered to the customer and risk of ownership has passed to the customer, or, in the limited case where a substantive customer-specified acceptance clause exists in the contract, the later of delivery or when the customer-specified acceptance is obtained.

Multi-Client Surveys, Data Libraries and Imaging Services Revenues from multi-client surveys are recognized as the seismic data is acquired and/or processed on a proportionate basis as work is performed. Under this method, the Company recognizes revenues based upon quantifiable measures of progress, such as kilometers acquired or days processed. Upon completion of a multi-client seismic survey, the survey data is considered off-the-shelf and licenses to the survey data are sold to customers on a non-exclusive basis. The license of a completed multi-client survey is represented by the license of one standard set of data. Revenues on licenses of completed multi-client data surveys are recognized when (a) a signed final master geophysical data license agreement and accompanying supplemental license agreement are returned by the customer; (b) the purchase price for the license is fixed or determinable; (c) delivery or performance has occurred; (d) and no significant uncertainty exists as to the customer s obligation, willingness or ability to pay. In limited situations, the Company has provided the customer with a right to exchange seismic data for another specific seismic data set. In these limited situations, the Company recognizes revenue at the earlier of the customer exercising its exchange right or the expiration of the customer s exchange right.

Revenues from all imaging and other services are recognized when persuasive evidence of an arrangement exists, the price is fixed or determinable, and collectibility is reasonably assured. Revenues from contract services performed on a day-rate basis are recognized as the service is performed.

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Software For the sales of navigation, survey and quality control software systems, the Company follows the requirements of ASC 985-605 *Software Revenue Recognition.* The Company recognizes revenue from sales of these software systems when (a) evidence of an arrangement exists; (b) the price to the customer is fixed and determinable; (c) collectibility is reasonably assured; and (d) the software is delivered to the customer and risk of ownership has passed to the customer, or, in the limited case where a substantive customer-specified acceptance clause exists, the later of delivery or when the customer-specified acceptance is obtained. These arrangements generally include the Company providing related services, such as training courses, engineering services and annual software maintenance. The Company allocates revenue to each element of the arrangement based upon vendor-specific objective evidence (VSOE) of fair value of the element or, if VSOE is not available for the delivered element, the Company applies the residual method.

In addition to perpetual software licenses, the Company offers certain time-based software licenses. For time-based licenses, the Company recognizes revenue ratably over the contract term, which is generally two to five years.

Multi-element Arrangements When separate elements (such as an acquisition system, other seismic equipment and/or imaging services) are contained in a single sales arrangement, or in related arrangements with the same customer, the Company follows the requirements of ASC 605-25 *Accounting for Multiple-Element Revenue Arrangement* (ASC 605-25). The multiple element arrangements guidance codified in ASC 605-25 was modified as a result of the final consensus reached in Accounting Standards Update (ASU) 2009-13, *Revenue Arrangements with Multiple Deliverables*. The Company adopted this new guidance as of January 1, 2010. Accordingly, the Company applied this guidance to transactions initiated or materially modified on or after January 1, 2010. The new guidance does not apply to software sales accounted for under ASC 985-605. There was not a material impact of adopting this guidance to the Company s results for the twelve months ended December 31, 2010.

This guidance eliminated the residual method of allocation for multiple-deliverable revenue arrangements and requires that arrangement consideration be allocated at the inception of an arrangement to all deliverables using the relative selling price method. Per the provisions of this guidance, the Company allocates arrangement consideration to each deliverable qualifying as a separate unit of accounting in an arrangement based on its relative selling price. The Company determines its selling price using VSOE, if it exists, or otherwise third-party evidence (TPE). If neither VSOE nor TPE of selling price exists for a unit of accounting, the Company uses estimated selling price (ESP). The Company generally expects that it will not be able to establish TPE due to the nature of the markets in which the Company competes, and, as such, the Company typically will determine its selling price using VSOE or, if not available, ESP. VSOE is generally limited to the price charged when the same or similar product is sold on a standalone basis. If a product is seldom sold on a standalone basis, it is unlikely that the Company can determine VSOE for the product.

The objective of ESP is to determine the price at which the Company would transact if the product were sold by the Company on a standalone basis. The Company s determination of ESP involves a weighting of several factors based on the specific facts and circumstances of the arrangement. Specifically, the Company will consider the anticipated margin on the particular deliverable, the selling price and profit margin for similar products and the Company s ongoing pricing strategy and policies.

The Company believes this new guidance will principally impact its Systems segment. A typical arrangement within the Systems segment might involve the sale of various products of the Company s acquisition systems and other seismic equipment. Products under these arrangements are often delivered to the customer within the same period, but in certain situations, depending upon product availability and the customer s delivery requirements, the products could be delivered to the customer at different times. In these situations, the Company considers its products to be separate units of accounting provided the delivered product has value to the customer on a standalone basis. The Company

considers a deliverable to have standalone value if the product is sold separately by the Company or another vendor or could be resold by the customer. Further, the Company s revenue arrangements generally do not include a general right of return relative to the delivered products.

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In addition, pursuant to the transitional requirements of the new multiple element revenue guidance, the Company adopted the guidance codified by ASU 2009-14, *Certain Arrangements That Include Software Elements*, as of January 1, 2010. This guidance amends the accounting model for revenue arrangements that includes both tangible products and software elements, such that tangible products containing both software and non-software components that function together to deliver the tangible product s essential functionality are no longer within the scope of software revenue guidance. There was not a material impact to the Company s financial statements of adopting this guidance.

Product Warranty The Company generally warrants that its manufactured equipment will be free from defects in workmanship, materials and parts. Warranty periods generally range from 30 days to three years from the date of original purchase, depending on the product. The Company provides for estimated warranty as a charge to costs of sales at the time of sale.

Research, Development and Engineering

Research, development and engineering costs primarily relate to activities that are designed to improve the quality of the subsurface image and overall acquisition economics of the Company s customers. The costs associated with these activities are expensed as incurred. These costs include prototype material and field testing expenses, along with the related salaries and stock-based compensation, facility costs, consulting fees, tools and equipment usage, and other miscellaneous expenses associated with these activities.

Income Taxes

Income taxes are accounted for under the liability method. Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and operating loss and tax credit carry-forwards. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The Company reserves for a significant portion of U.S. deferred tax assets and will continue to reserve for a significant portion of U.S. deferred tax assets until there is sufficient evidence to warrant reversal (see Note 16 *Income Taxes*). The effect on deferred income tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Comprehensive Net Income (Loss)

Comprehensive net income (loss), consisting of net income (loss), foreign currency translation adjustments, changes in fair value of effective cash flow hedges, equity interest in INOVA Geophysical s other comprehensive income and unrealized gains or losses on available-for-sale securities, is presented in the Consolidated Statements of Stockholders Equity and Comprehensive Income (Loss). The balance in Accumulated Other Comprehensive Income (Loss) as shown in the Consolidated Balance Sheets as of December 31, 2010 and 2009, consists of foreign currency translation adjustments, changes in fair value of effective cash flow hedges, equity interest in INOVA Geophysical s other comprehensive income and unrealized gains or losses on available-for-sale securities.

Foreign Currency Gains and Losses

Assets and liabilities of the Company s subsidiaries operating outside the United States that account in a functional currency other than U.S. dollars have been translated to U.S. dollars using the exchange rate in effect at the balance sheet date. Results of foreign operations have been translated using the average exchange rate during the periods of operation. Resulting translation adjustments have been recorded as a component of Accumulated Other Comprehensive Income (Loss). Foreign currency transaction gains and losses are included in the Consolidated

Statements of Operations as they occur. Total foreign currency transaction gains (losses) were $1.1 million, $(3.8) million and $3.1 million for 2010, 2009 and 2008, respectively.

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Concentration of Credit and Foreign Sales Risks

No single customer represented 10% or more of the Company s consolidated net revenues for 2010, 2009 and 2008; however, the Company s top five customers in total represented approximately 28%, 29% and 30%, respectively, of the Company s consolidated net revenues. The loss of any significant customers or deterioration in the Company s relationship with these customers could have a material adverse effect on the Company s results of operations and financial condition.

For 2010, the Company recognized $136.8 million of sales to customers in Europe, $51.5 million of sales to customers in Asia Pacific, $18.4 million of sales to customers in Africa, $10.5 million of sales to customers in the Middle East, $46.0 million of sales to customers in Latin American countries and $3.6 million of sales to customers in the Commonwealth of Independent States, or former Soviet Union (CIS). The majority of the Company s foreign sales are denominated in U.S. dollars. For 2010, 2009 and 2008, international sales comprised 60%, 64% and 60%, respectively, of total net revenues. For a number of years, the CIS and certain Latin American countries have experienced economic problems and uncertainties. However, given the global downturn that commenced in 2008, more countries and areas of the world have also experienced economic problems and uncertainties. To the extent that world events or economic conditions negatively affect the Company s future sales to customers in these and other regions of the world or the collectability of the Company s existing receivables, the Company s future results of operations, liquidity, and financial condition would be adversely affected.

Stock-Based Compensation

The Company accounts for stock based compensation under the recognition provisions of ASC 718, *Share-Based Payment* (ASC 718). The Company estimates the value of stock option awards on the date of grant using the Black-Scholes option pricing model. The determination of the fair value of stock-based payment awards on the date of grant using an option-pricing model is affected by the Company s stock price as well as assumptions regarding a number of subjective variables. These variables include, but are not limited to, expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behaviors, risk-free interest rate, and expected dividends. The Company recognizes stock-based compensation on the straight-line basis over the service period of each award (generally the award s vesting period).

The accompanying financial statements for 2009 included approximately $3.3 million of stock-based compensation expense related to 2008, 2007 and 2006. ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The prior-period stock-based compensation expense relates to adjustments between estimated and actual forfeitures that should have been recognized over the vesting period of such awards. Such amounts were not deemed material with respect to either the results of prior years or the results and the trend of earnings for 2009 and were therefore recorded in 2009.

Recent Accounting Pronouncements

In January 2010, the Financial Accounts Standards Board (FASB) issued ASU No. 2010-02, *Consolidation (Topic 810): Accounting and Reporting for Decreases in Ownership of a Subsidiary a Scope Clarification* (ASU 2010-02). ASU 2010-02 amends ASC 810-10 *Consolidation Overall* (ASC 810-10) and provides clarification on the entities and activities required to follow more specific guidance included in ASC 810-10. ASU 2010-02 clarifies that the scope of the decrease in ownership provisions of ASC 810-10 applies to (1) a subsidiary or groups of assets that is a business; (2) a subsidiary that is a business that is transferred to an equity method investee or joint venture; or (3) an exchange of a group of assets that constitutes a business for a non-controlling interest in an entity. This amendment affects entities that have previously adopted ASC 810-10. ASU 2010-02 is effective for fiscal years beginning on or

after December 15, 2009. The adoption of ASU 2010-02 did not have a material impact to the Company s financial position, results of operation or cash flows.

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In January 2010, the FASB issued ASU No. 2010-06, *Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements* (ASU 2010-06). ASU 2010-06 amends the disclosure guidance with respect to fair value measurements. Specifically, the new guidance requires disclosure of amounts transferred in and out of Levels 1 and 2 fair value measurements, a reconciliation presented on a gross basis rather than a net basis of activity in Level 3 fair value measurements, greater disaggregation of the assets and liabilities for which fair value measurements are presented and more robust disclosure of the valuation techniques and inputs used to measure Level 2 and 3 fair value measurements. ASU 2010-06 is effective for interim and annual reporting periods beginning after December 15, 2009, with the exception of the new guidance around the Level 3 activity reconciliations, which is effective for fiscal years beginning after December 15, 2010. The adoption of ASU 2010-06 did not have a material impact to the Company s financial position, results of operation or cash flows.

(2) Formation of INOVA Geophysical and Related Financing Transactions

On March 25, 2010, the Company completed the transactions contemplated under two definitive agreements relating to its proposed joint venture and related transactions with BGP:

A Stock Purchase Agreement with BGP dated as of March 19, 2010 (the Stock Purchase Agreement), under which ION agreed to sell 23,789,536 shares of ION s common stock to BGP; and

A Share Purchase Agreement with BGP dated as of March 24, 2010 (the Share Purchase Agreement), under which ION agreed to sell to BGP a 51% equity interest in INOVA Geophysical, thereby forming the joint venture with BGP.

The transactions under the Stock Purchase Agreement and the Share Purchase Agreement had been contemplated under the terms of a binding Term Sheet (the Term Sheet) dated as of October 23, 2009 between ION and BGP.

Proceeds from the Sales of ION Common Stock and Equity Interests in INOVA Geophysical

As provided in the Stock Purchase Agreement, on March 25, 2010, ION issued to BGP 23,789,536 shares of ION s common stock in a privately-negotiated transaction at an effective purchase price of $2.80 per share. The $2.80 price per share had been agreed to by the parties in the Term Sheet.

The 23,789,536 shares of ION common stock issued by ION to BGP consisted of (i) 10,204,082 shares acquired upon BGP s conversion of the approximately $28.6 million principal balance of indebtedness outstanding under a Convertible Promissory Note dated as of October 23, 2009 (the Domestic Convertible Note) issued by the Company to Bank of China, New York Branch (Bank of China) and (ii) 13,585,454 shares BGP purchased for $2.80 cash per share under the Stock Purchase Agreement, resulting in total gross cash proceeds to ION from this sale of approximately $38.0 million.

The Domestic Convertible Note, along with a Convertible Promissory Note made by the Company s subsidiary, ION International S.à r.l., to the order of Bank of China on October 23, 2009 (the Foreign Convertible Note and together with the Domestic Convertible Note, the Convertible Notes) had been held by Bank of China in connection with bridge loan financing provided to ION by Bank of China in October 2009. On March 19, 2010, Bank of China assigned the Convertible Notes to BGP. On March 24, 2010, BGP delivered a notice to ION of its election to convert the entire outstanding principal amount under the Domestic Convertible Note into 10,204,082 shares of ION s common stock at the $2.80 per share conversion price, simultaneously with and conditioned upon the closing of the transactions under the Stock Purchase Agreement. BGP did not convert any of the outstanding amount under the Foreign Convertible Note. The total outstanding indebtedness owed by the Company under the Foreign Convertible Note and

all unpaid interest and fees on the Domestic Convertible Note were repaid by the Company, along with the other revolving credit loans under the Company s existing bank credit facility, using amounts borrowed under the Company s new Credit Facility and the $38.0 million proceeds from the sale of 13,585,454 shares of ION common stock to BGP.

In October 2009, ION issued to BGP the Warrant. BGP elected not to exercise the Warrant and, on March 25, 2010, BGP terminated the Warrant and surrendered it to ION. After giving effect to the issuance of

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the 23,789,536 shares of common stock of ION, BGP beneficially owned as of March 25, 2010, approximately 16.6% of the outstanding shares of ION common stock.

As part of the re-financing of the Company s debt, the Company, contemporaneously with the formation of INOVA Geophysical, entered into a new credit facility, which provided the Company with approximately $106.3 million under a new five-year term loan and approximately $100.0 million under a new revolving line of credit (the Credit Facility). In connection with the approximately $38.0 million in cash received from BGP for BGP s purchase of 13,585,454 shares of ION common stock, the Company borrowed approximately $191.3 million in new borrowings under ION s new Credit Facility, consisting of approximately $106.3 million under a new five-year term loan and approximately $85.0 million under a new revolving line of credit. These funds, along with certain cash on hand, were applied to repay a total of approximately $226.0 million in indebtedness, including (i) approximately $89.4 million in outstanding revolving indebtedness under ION s prior bank senior credit facility, (ii) approximately $101.6 million in outstanding indebtedness under a five-year term loan under ION s prior bank senior credit facility and (iii) approximately $35.0 million of outstanding indebtedness under an amended and restated subordinated promissory note dated December 30, 2008 that was payable to one of the selling shareholders in connection with ION s acquisition of ARAM Systems Ltd. in 2008.

ION then applied a portion of the $108.5 million in cash proceeds ($99.8 million, net of transaction and professional fees and cash balances, which were part of the disposed land divisions contributed to INOVA Geophysical) it received for BGP s purchase of the 51% equity interest in INOVA Geophysical (see *Formation of ION Geophysical* below) to repay the $85.0 million of revolving loans that ION had borrowed to pay off the revolving indebtedness under ION s prior bank senior credit facility.

In connection with the Stock Purchase Agreement transactions, the Company entered into an Investor Rights Agreement with BGP that provides that, among other items:

- for so long as BGP owns as least 10% of the Company s outstanding shares of common stock, BGP will have the right to nominate one director to serve on the Board of Directors;
- subject to customary exceptions, BGP will have certain pre-emptive rights to subscribe for a number of shares of the Company s common stock or other securities that the Company is then offering as may be necessary to retain BGP s proportionate ownership of common stock that exists before that issuance; and
- BGP will have certain demand and piggyback registration rights with respect to resales of its shares.

Formation of INOVA Geophysical

On March 25, 2010, ION and BGP formed the INOVA Geophysical joint venture as contemplated under the Share Purchase Agreement. The business of INOVA Geophysical is to design, develop, manufacture and sell land-based seismic data acquisition equipment for the petroleum industry worldwide. The joint venture was formed to combine ION s land seismic equipment business and technology with BGP s expertise and experience in land seismic operations and thereby create a new enterprise that would have the resources, technology and experience required to provide advanced products and services on a global basis.

The assets of each party contributed to the joint venture included land seismic recording systems, inventory, certain intellectual property rights and contract rights necessary to or principally used in the conduct or operation of the land equipment businesses as conducted or operated by BGP or ION prior to closing. Under the Share Purchase Agreement, the Company sold BGP a 51% equity interest in INOVA Geophysical for total consideration of

$108.5 million cash ($99.8 million net of fees and contributed cash balances) and BGP s transfer to the Company of a 49% equity interest in a Chinese subsidiary that held land seismic equipment assets and related liabilities. The Company and BGP then contributed their respective interests in the Chinese subsidiary to INOVA Geophysical.

INOVA Geophysical also assumed certain liabilities related to the transferred businesses. Among these liabilities was approximately $18.4 million (as of March 25, 2010) in indebtedness under the rental land

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equipment secured financing that ION and its rental equipment subsidiaries had entered into in June 2009 with a subsidiary of ICON Capital Inc. ION remains liable on its guarantee of this indebtedness, but ION has received a back-up guaranty from INOVA Geophysical with respect to any defaults on this transferred indebtedness for which ION is called upon to remedy. INOVA Geophysical has also assumed approximately $2.3 million in capital lease liabilities related to certain equipment contributed to the joint venture.

Accounting Impact to the Formation of INOVA Geophysical and Related Financing Transactions

At the closing of the joint venture, the Company recorded a loss on disposition of its land division of approximately $38.1 million in the first quarter of 2010. The following components comprise this loss on disposition:

The Company received cash proceeds from BGP of $99.8 million, net of $5.6 million of transaction and professional fees and $3.1 million of cash balances, which were part of the disposed land divisions contributed to INOVA Geophysical.

The Company retained a 49% interest in INOVA Geophysical, which was recorded at its fair value of $119.0 million.

The Company deconsolidated $221.7 million of net assets associated with its land division.

The Company recognized $21.2 million of accumulated foreign currency translation losses, primarily related to its Canada land operations.

The Company recognized $7.0 million of expense resulting from the sale of ION common stock to BGP at a discount to market under BGP s equity purchase commitment as an inducement for BGP to enter into the transaction.

The Company recognized $5.0 million of expense related to its permanently ceasing the use of certain leased facilities previously occupied by its land division. See further discussion at Note 20 *Restructuring Activities* .

The Company recognized $2.0 million of other expenses associated with the formation of INOVA Geophysical.

The following represents the impact of the other related financing transactions in the first quarter of 2010:

The Company recorded a non-cash fair value adjustment of $12.8 million, reflecting the decrease in the fair value of the Warrant issued to BGP in October 2009, from January 1, 2010 through March 25, 2010, the date of the formation of INOVA Geophysical. At that date, the remaining $32.0 million liability representing the Warrant s fair value was reclassified to additional paid-in-capital.

The Company recognized in interest expense the remaining non-cash debt discount of $8.7 million, which was associated with the Company s execution and delivery of the Convertible Notes to BGP in October 2009.

As part of the repayment of the previous revolving line of credit and term loan, the Company wrote-off to interest expense, $10.1 million of unamortized debt issuance costs.

The following represents the impact of the related financing transaction in the fourth quarter of 2009:

At issuance of the Warrant to BGP in October 2009, the Company determined that the Warrant was not considered indexed to the Company s own stock and was required to be accounted for as a liability at its fair value. As a result, the Company recorded a $15.4 million non-cash discount on the Convertible Notes. This non-cash discount was associated with the day-one fair value of the Warrant, which was being amortized over the expected term of the Convertible Notes (March 2010). Approximately $6.7 million of the non-cash debt discount was recognized to interest expense during the fourth quarter of 2009. The Company also recorded a subsequent non-cash fair value adjustment of $29.4 million, reflecting the increase in the fair value of the Warrant from its issuance through December 31, 2009.

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(3) Equity Method Investment in INOVA Geophysical

The Company accounts for its 49% interest in INOVA Geophysical as an equity method investment and records its share of earnings in INOVA Geophysical on a one fiscal quarter lag basis. As of September 30, 2010, the allocation of the purchase price by INOVA Geophysical was based upon a preliminary fair value study. Estimates and assumptions are subject to change upon the completion of the final valuation. The following table reflects summarized, unaudited financial information for INOVA Geophysical as of September 30, 2010 and for the period from March 26, 2010 through September 30, 2010 (in thousands):

		September 30, 2010
Current assets	$	132,438
Non-current assets		124,665
Current liabilities		35,231
Non-current liabilities		28,869
Equity	$	193,003

		March 26, 2010 through September 30, 2010
Total net revenues	$	47,609
Gross profit (loss)	$	(21,574)(A)
Loss from operations	$	(45,423)
Net loss	$	(48,416)

(A) Includes approximately $19.3 million of excess inventory reserve reflected in the third quarter of 2010.

(4) Segment and Geographic Information

The Company evaluates and reviews its results based on four segments: Systems, Software (formerly referred to as Data Management Solutions), Solutions (formerly referred to as ION Solutions) and its Legacy Land Systems which is now part of INOVA Geophysical. The Company measures segment operating results based on income from operations. The Legacy Land Systems (INOVA) segment represents the disposed land division operations through March 25, 2010, the date of the closing of INOVA Geophysical. The Systems segment includes all seismic acquisition systems businesses that are wholly-owned by the Company and its consolidated subsidiaries. The Company has reclassified its previously reported results to reflect these segment changes.

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A summary of segment information is as follows (in thousands):

	Years Ended December 31,		
	2010	2009	2008
Net revenues:			
Systems:			
Towed Streamer	$ 83,567	$ 83,398	$ 123,785
Ocean Bottom	1,876	4,948	42,483
Other	28,783	39,943	72,657
Total	$ 114,226	$ 128,289	$ 238,925
Software:			
Software Systems	$ 34,465	$ 31,601	$ 34,308
Services	2,166	2,132	2,932
Total	$ 36,631	$ 33,733	$ 37,240
Solutions:			
Data Processing	$ 107,997	$ 82,330	$ 59,550
New Venture	81,293	71,135	116,706
Data Library	87,664	26,520	82,824
Total	$ 276,954	$ 179,985	$ 259,080
Legacy Land Systems (INOVA)	$ 16,511	$ 77,774	$ 144,278
Total	$ 444,322	$ 419,781	$ 679,523
Gross profit:			
Systems	$ 48,557	$ 52,934	$ 90,795
Software	24,356	21,998	24,656
Solutions	93,804	59,844	78,245
Legacy Land Systems (INOVA)	(984)	(2,638)	14,048
Total	$ 165,733	$ 132,138	$ 207,744
Gross margin:			
Systems	43%	41%	38%
Software	66%	65%	66%
Solutions	34%	33%	30%
Legacy Land Systems (INOVA)	(6)%	(3)%	10%
Total	37%	31%	31%
Income (loss) from operations:			

Systems	$ 27,749	$ 31,209	$ 62,157
Software	21,936	19,970	22,298
Solutions	60,632	27,746	40,534
Legacy Land Systems (INOVA)	(9,623)	(40,881)	(23,430)
Corporate and other	(47,847)	(58,216)	(62,099)
Impairment of goodwill and intangible assets		(38,044)	(252,283)
Total	$ 52,847	$ (58,216)	$ (212,823)
Depreciation and amortization (including multi-client data library):			
Systems	$ 2,992	$ 2,572	$ 2,457
Software	2,461	2,665	3,145
Solutions	96,271	62,930	96,995
Legacy Land Systems (INOVA)	6,367	25,136	8,244
Corporate and other	2,644	3,057	2,743
Total	$ 110,735	$ 96,360	$ 113,584

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	December 31, 2010	December 31, 2009
Total assets:		
Systems	$ 139,844	$ 126,252
Software	41,888	40,133
Solutions	255,528	221,596
Legacy Land Systems (INOVA)		259,476
Corporate and other	187,182	100,729
Total	$ 624,442	$ 748,186

	December 31, 2010	December 31, 2009
Total assets by geographic area:		
North America	$ 440,600	$ 520,454
Europe	56,507	56,413
Middle East	75,351	111,056
Latin America	43,363	50,374
Other	8,621	9,889
Total	$ 624,442	$ 748,186

Intersegment sales are insignificant for all periods presented. Corporate assets include all assets specifically related to corporate personnel and operations, a majority of cash and cash equivalents, and the investment in INOVA Geophysical. Depreciation and amortization expense is allocated to segments based upon use of the underlying assets.

A summary of net revenues by geographic area follows (in thousands):

	Years Ended December 31, 2010	2009	2008
North America	$ 177,480	$ 152,995	$ 272,567
Europe	136,846	92,760	202,170
Asia Pacific	51,496	67,199	57,470
Latin America	45,954	34,250	52,700
Africa	18,417	25,435	31,693
Middle East	10,536	42,403	32,872
Commonwealth of Independent States (CIS)	3,593	4,739	30,051
Total	$ 444,322	$ 419,781	$ 679,523

Net revenues are attributed to geographical locations on the basis of the ultimate destination of the equipment or service, if known, or the geographical area imaging services are provided. If the ultimate destination of such equipment is not known, net revenues are attributed to the geographical location of initial shipment.

(5) Net Loss per Common Share

Basic net loss per common share is computed by dividing net loss applicable to common shares by the weighted average number of common shares outstanding during the period. Diluted net income (loss) per common share is determined based on the assumption that dilutive restricted stock and restricted stock unit awards have vested and outstanding dilutive stock options have been exercised and the aggregate proceeds were used to reacquire common stock using the average price of such common stock for the period. Because

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the Company had a net loss applicable to common shares for all periods presented, all restricted stock and unit awards and stock options were anti-dilutive. The total number of shares issuable under anti-dilutive options at December 31, 2010, 2009 and 2008 were 7,721,792, 7,766,188 and 7,893,275, respectively.

There are 27,000 outstanding shares of Series D Cumulative Convertible Preferred Stock, which may currently be converted, at the holder s election, into up to 6,065,075 shares of common stock. See further discussion of the Series D Preferred Stock conversion provisions at Note 14 *Cumulative Convertible Preferred Stock* and Note 19 *Legal Matters.* The outstanding shares of all Series D Preferred Stock were anti-dilutive for all periods presented.

The Convertible Notes and Warrant entered into on October 23, 2009 were anti-dilutive. See further discussion of these transactions at Note 2 *Formation of INOVA Geophysical and Related Financing Transactions.*

(6) Accounts Receivable

A summary of accounts receivable is as follows (in thousands):

	December 31,	
	2010	**2009**
Accounts receivable, principally trade	$ 78,421	$ 116,720
Less allowance for doubtful accounts	(845)	(5,674)
Accounts receivable, net	$ 77,576	$ 111,046

(7) Inventories

A summary of inventories is as follows (in thousands):

	December 31,	
	2010	**2009**
Raw materials and subassemblies	$ 39,412	$ 111,022
Work-in-process	4,605	10,129
Finished goods	35,741	112,068
Reserve for excess and obsolete inventories	(12,876)	(30,618)
Total	$ 66,882	$ 202,601

The Company provides for estimated obsolescence or excess inventory equal to the difference between the cost of inventory and its estimated market value based upon assumptions about future demand for the Company s products and market conditions. For 2010, 2009 and 2008, the Company recorded inventory obsolescence and excess inventory charges of approximately $1.6 million, $9.0 million, and $14.0 million, respectively. The decrease in the reserves for excess and obsolete inventory, principally related to the disposition of the land division in the first quarter of 2010.

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(8) Property, Plant and Equipment

A summary of property, plant and equipment is as follows (in thousands):

	December 31, 2010	2009
Land	$	$ 25
Buildings	13,963	15,710
Machinery and equipment	73,663	90,656
Lease and seismic rental equipment	3,721	65,856
Furniture and fixtures	3,810	4,735
Other	738	1,187
Total	95,895	178,169
Less accumulated depreciation	(75,750)	(99,614)
Property, plant and equipment, net	$ 20,145	$ 78,555

Total depreciation expense, including amortization of assets recorded under capital leases, for 2010, 2009 and 2008 was $15.7 million, $32.6 million and $19.1 million, respectively.

(9) Cost Method Investments

In April 2010, the Company received in satisfaction of its trade receivables with Reservoir Exploration Technology, ASA (RXT), 351,096,180 shares (3,510,960 shares after RXT s reverse stock split effective on December 22, 2010) of RXT common stock having a fair value of approximately $9.5 million. The shares have since declined to a fair value of approximately $1.9 million at December 31, 2010. The Company accounts for its shares in RXT as available-for-sale. As of December 31, 2010, the Company determined that the decline in the fair value of the RXT shares was other-than-temporary, which resulted in a write-down of the investment to a fair value of $1.9 million with a charge to earnings of $7.6 million.

In 2009, as part of its periodic cost method investment impairment review, the Company identified its investment in Colibrys, Ltd. as meeting impairment indicators. The Company then calculated the fair value of its investments and based upon the Company s analysis, the Company determined that its investment was fully impaired from its original cost of $4.5 million.

(10) Goodwill

On December 31, 2010 and 2009, the Company completed the annual reviews of the carrying value of goodwill in the Marine Systems and Software reporting units and noted no impairments. The annual impairment tests for 2010 and 2009 both indicated that the fair value of these two reporting units significantly exceeded their carrying values. However, if the estimates or related projections associated with the reporting units significantly change in the future, the Company may be required to record impairment charges.

In 2008, the Company recorded an impairment charge of $242.2 million, fully impairing the goodwill related to its Legacy Land Systems and Solutions reporting units.

The following is a summary of the changes in the carrying amount of goodwill for the years ended December 31, 2010 and 2009 (in thousands):

	Systems	Software	Total
Balance at January 1, 2009	$ 26,984	$ 22,788	$ 49,772
Impact of foreign currency translation adjustments		2,280	2,280
Balance at December 31, 2009	26,984	25,068	52,052
Impact of foreign currency translation adjustments		(719)	(719)
Balance at December 31, 2010	$ 26,984	$ 24,349	$ 51,333

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(11) Intangible Assets

A summary of intangible assets, net, is as follows (in thousands):

	December 31, 2010		
	Gross Amount	Accumulated Amortization	Net
Proprietary technology	$ 14,242	$ (13,384)	$ 858
Customer relationships	40,211	(22,115)	18,096
Trade names	4,043	(4,043)	
Patents	702	(702)	
Intellectual property rights	3,350	(1,987)	1,363
Total	$ 62,548	$ (42,231)	$ 20,317

	December 31, 2009			
	Gross Amount	Accumulated Amortization	Impairments	Net
Proprietary technology	$ 84,864	$ (19,907)	$ (33,311)	$ 31,646
Customer relationships	45,415	(18,833)	(4,733)	21,849
Trade names	11,389	(6,164)		5,225
Patents	3,689	(2,964)		725
Intellectual property rights	4,550	(2,871)		1,679
Non-compete agreements	919	(277)		642
Total	$ 150,826	$ (51,016)	$ (38,044)	$ 61,766

In the first quarter of 2009, the Company recorded an impairment charge of $38.0 million, before tax, associated with a portion of its proprietary technology and the remainder of its customer relationships related to the ARAM acquisition. This impairment was the result of the continued overall economic and financial crisis, which continued to adversely affect the demand for the Company s products and services, especially for its land analog acquisition products within North America and Russia.

In the fourth quarter of 2008, the Company recorded an intangible asset impairment charge of $10.1 million, before tax, related to ARAM s customer relationships, trade name and non-compete agreements.

Total amortization expense for intangible assets for 2010, 2009 and 2008 was $7.4 million, $13.7 million, and $12.1 million, respectively. A summary of the estimated amortization expense for the next five years is as follows (in thousands):

Years Ended December 31,

2011	$ 4,946
2012	$ 3,331
2013	$ 2,879
2014	$ 2,373
2015	$ 1,964

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(12) Accrued Expenses

A summary of accrued expenses is as follows (in thousands):

	December 31, 2010	2009
Compensation, including compensation-related taxes and commissions	$ 28,024	$ 20,144
Accrued multi-client data library acquisition costs	15,434	13,890
Accrued taxes (primarily income taxes)	3,238	11,159
Product warranty	784	5,088
Other	7,319	15,612
Total accrued expenses	$ 54,799	$ 65,893

The Company generally warrants that all manufactured equipment will be free from defects in workmanship, materials, and parts. Warranty periods generally range from 30 days to three years from the date of original purchase, depending on the product. The Company provides for estimated warranty as a charge to cost of sales at time of sale, which is when estimated future expenditures associated with such contingencies become probable and reasonably estimable. However, new information may become available, or circumstances (such as applicable laws and regulations) may change, thereby resulting in an increase or decrease in the amount required to be accrued for such matters (and therefore a decrease or increase in reported net income in the period of such change). A summary of warranty activity is as follows (in thousands):

	Years Ended December 31, 2010	2009	2008
Balance at beginning of period	$ 5,088	$ 10,526	$ 13,439
Reduction of warranties for disposal of land division	(3,821)		
Opening balance for accruals for warranties for acquired entity			845
Accruals (expirations) for warranties issued/expired during the period	443	(2,121)	4,624
Settlements made (in cash or in kind) during the period	(926)	(3,317)	(8,382)
Balance at end of period	$ 784	$ 5,088	$ 10,526

(13) Notes Payable, Long-term Debt, Lease Obligations and Interest Rate Caps

Obligations (In thousands)	December 31, 2010	2009
$100.0 million revolving line of credit	$	$ 118,000
Term loan facility	103,250	101,563
Secured equipment financing		19,080

Amended and restated subordinated seller note		35,000
Facility lease obligation	3,657	4,174
Equipment capital leases and other notes payable	1,753	8,220
Unamortized non-cash debt discount		(8,656)
Total	108,660	277,381
Current portion of notes payable, long-term debt and lease obligations	(6,073)	(271,132)
Non-current portion of notes payable, long-term debt and lease obligations	$ 102,587	$ 6,249

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Revolving Line of Credit and Term Loan Facility

On March 25, 2010, ION, its Luxembourg subsidiary, ION International S.à r.l. (ION Sàrl), and certain of its other U.S. and foreign subsidiaries entered into the Credit Facility. The terms of the Credit Facility are set forth in a credit agreement dated as of March 25, 2010 (the Credit Agreement), by and among ION, ION Sàrl and China Merchants Bank Co., Ltd., New York Branch (CMB), as administrative agent and lender. The obligations of ION under the Credit Facility are guaranteed by certain of ION s material U.S. subsidiaries and the obligations of ION Sàrl under the Credit Facility are guaranteed by certain of ION s material U.S. and foreign subsidiaries, in each case that are parties to the credit agreement.

The Credit Facility replaced ION s previous syndicated credit facility under an amended and restated credit agreement dated as of July 3, 2008, as subsequently amended numerous times (the Prior Facility). The terms and conditions of the Credit Facility are similar in many respects to the terms and conditions under the Prior Facility. The Credit Facility provides ION with a revolving line of credit of up to $100.0 million in borrowings (including borrowings for letters of credit) and refinanced ION s outstanding term loan under the Prior Facility with a new term loan in the original principal amount of $106.3 million. The Credit Facility, like the Prior Facility, permits direct borrowings by ION Sàrl for use by ION s foreign subsidiaries.

Under the Credit Facility, up to $75.0 million is available for revolving line of credit borrowings by ION, and up to $60.0 million (or its equivalent in foreign currencies) is available for revolving line of credit borrowings by ION Sàrl, but the total amounts borrowed may not exceed $100.0 million. Borrowings under the Credit Facility are not subject to a borrowing base. As of December 31, 2010, ION had no indebtedness outstanding under the revolving line of credit.

Revolving credit borrowings under the Credit Facility may be utilized to fund the working capital needs of ION and its subsidiaries, and to finance acquisitions and investments and for general corporate purposes. In addition, the Credit Facility includes a $35.0 million sub-limit for the issuance of documentary and stand-by letters of credit.

The revolving credit indebtedness and term loan indebtedness under the Credit Facility are each scheduled to mature on March 24, 2015. The $106.3 million original principal amount under the term loan is subject to scheduled quarterly amortization payments, commencing on June 30, 2010, of $1.0 million per quarter until the maturity date, with the remaining unpaid principal amount of the term loan due upon the maturity date. The indebtedness under the Credit Facility may sooner mature on a date that is 18 months after the earlier of (i) any dissolution of INOVA Geophysical, or (ii) the administrative agent determining in good faith that INOVA Geophysical is unable to perform its obligations under its guarantee, which is described below.

The interest rate per annum on borrowings under the Credit Facility will be, at ION s option:

An alternate base rate equal to the sum of (i) the greatest of (a) the prime rate of CMB, (b) a federal funds effective rate plus 0.50%, or (c) an adjusted LIBOR-based rate plus 1.0%, and (ii) an applicable interest margin of 2.5%; or

For eurodollar borrowings and borrowings in Euros, Pounds Sterling or Canadian Dollars, the sum of (i) an adjusted LIBOR-based rate, and (ii) an applicable interest margin of 3.5%.

As of December 31, 2010, the $103.3 million in outstanding term loan indebtedness under the Credit Facility accrues interest at a rate of 3.8% rate per annum.

The parties had originally contemplated that INOVA Geophysical would be an additional guarantor or provider of credit support under the Credit Agreement. However, due to the time required to obtain necessary Chinese governmental approvals for such credit support from INOVA Geophysical, the Credit Agreement instead provided that BGP enter into an agreement to guarantee the indebtedness under the Credit Facility, which INOVA Geophysical s guarantee would replace when the applicable governmental approvals were obtained. ION also entered into a credit support agreement with BGP whereby ION agreed to indemnify BGP for any losses sustained by BGP that arose out of or were a result of the enforcement of BGP s guarantee. In June 2010, the applicable governmental approvals were obtained and BGP was then released from its

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guarantee obligations, and these obligations were assumed by INOVA Geophysical as originally contemplated under the Credit Agreement. In addition, ION s credit support agreement with BGP was terminated.

The obligations of ION and the guarantee obligations of the U.S. guarantors are secured by a first-priority security interest in 100% of the stock of all U.S. guarantors and 65% of the stock of certain first-tier foreign subsidiaries and by substantially all other assets of ION and the U.S. guarantors. The obligations of ION Sàrl and the foreign guarantors are secured by a first-priority security interest in 100% of the stock of the foreign guarantors and the U.S. guarantors and substantially all other assets of the foreign guarantors, the U.S. guarantors and ION.

The agreements governing the Credit Facility contain covenants that restrict the borrowers, the guarantors and their subsidiaries, subject to certain exceptions, from:

Incurring additional indebtedness (including capital lease obligations), granting or incurring additional liens on ION s properties, pledging shares of ION s subsidiaries, entering into certain merger or other change-in-control transactions, entering into transactions with ION s affiliates, making certain sales or other dispositions of assets, making certain investments, acquiring other businesses and entering into sale-leaseback transactions with respect to ION s properties;

Paying cash dividends on ION s common stock; and

Repurchasing and acquiring ION capital stock, unless there is no event of default under the Credit Agreement and the amount of such repurchases does not exceed an amount equal to (i) 25% of ION s consolidated net income for the prior fiscal year, less (ii) the amount of any cash dividends paid on ION s common stock.

The Credit Facility requires compliance with certain financial covenants, including requirements commencing on June 30, 2011 and for each fiscal quarter thereafter for ION and its U.S. subsidiaries to:

Maintain a minimum fixed charge coverage ratio in an amount equal to at least 1.125 to 1;

Not exceed a maximum leverage ratio of 3.25 to 1; and

Maintain a minimum tangible net worth of at least 60% of ION s tangible net worth as of March 31, 2010, as defined.

The fixed charge coverage ratio is defined as the ratio of (i) ION s consolidated EBITDA less cash income tax expense and non-financed capital expenditures, to (ii) the sum of scheduled payments of lease payments and payments of principal indebtedness, interest expense actually paid and cash dividends, in each case for the four consecutive fiscal quarters most recently ended. The leverage ratio is defined as the ratio of (x) total funded consolidated debt, capital lease obligations and issued letters of credit (net of cash collateral) to (y) consolidated EBITDA of ION for the four consecutive fiscal quarters most recently ended. Upon commencement of the financial covenants on June 30, 2011, the Company expects to be in compliance and remain in compliance throughout the remainder of 2011.

The Credit Agreement contains customary event of default provisions similar to those contained in the credit agreement for the Prior Facility (including a change of control event affecting ION), the occurrence of which could lead to an acceleration of ION s obligations under the Credit Facility. The Credit Agreement also provides that certain acts of bankruptcy, insolvency or liquidation of INOVA Geophysical would constitute additional events of default under the Credit Facility.

Interest Rate Caps

In August 2010, the Company entered into an interest rate cap agreement and purchased interest rate caps having an initial notional amount of $103.3 million with a three-month average LIBOR cap of 2.0%. If and when the three-month average LIBOR rate exceeds 2.0%, the LIBOR portion of interest owed by the Company would be capped at 2.0%. The initial notional amount was set to equal the projected outstanding balance under the Company s term loan facility at December 31, 2010. The notional amount was then set so as not to exceed

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the Company s outstanding balance of its term loan facility over the period through March 29, 2013. The Company purchased these interest rate caps for approximately $0.4 million.

As of December 31, 2010, the Company held interest rate caps as follows (amounts in thousands):

Notional Amount	Payment Date	Cap Rate
$ 103,250	March 29, 2011	2.0%
$ 92,025	June 29, 2011	2.0%
$ 91,125	September 29, 2011	2.0%
$ 90,225	December 29, 2011	2.0%
$ 89,325	March 29, 2012	2.0%
$ 68,775	June 29, 2012	2.0%
$ 68,075	September 28, 2012	2.0%
$ 67,375	December 31, 2012	2.0%
$ 66,675	March 29, 2013	2.0%

These interest rate caps have been designated as cash flow hedges according to ASC 815 (*Derivatives and Hedging*) and, accordingly, the effective portion of the change in fair value of these interest rate caps are recognized in other comprehensive income in the Company s consolidated financial statements. As of December 31, 2010, the total fair value of these interest rate caps was $0.3 million. Therefore, there was $0.1 million, net of tax, related to the change in fair value included in other comprehensive income for 2010. Gains or losses on derivative instruments are reported in the same line item as the underlying hedged transaction in the consolidated statements of operations. For 2010, no gains or losses have been reclassified from other comprehensive income into the consolidated statements of operations.

Facility Lease Obligation

In 2001, the Company sold its facilities, located in Stafford, Texas. Simultaneously with the sale, the Company entered into a non-cancelable twelve-year lease with the purchaser of the property. Because the Company retained a continuing involvement in the property that precluded sale-leaseback treatment for financial accounting purposes, the sale-leaseback transaction was accounted for as a financing transaction.

In June 2005, the owner sold the facilities to two parties, which were unrelated to each other as well as unrelated to the seller. In conjunction with the sale of the facilities, the Company entered into two separate lease arrangements for each of the facilities with the new owners. One lease, which was classified as an operating lease, has a twelve-year lease term. The second lease continues to be accounted for as a financing transaction due to the Company s continuing involvement in the property as a lessee, and has a ten-year lease term. The Company recorded the commitment under the second lease as a $5.5 million lease obligation at an implicit rate of 11.7% per annum, of which $3.7 million was outstanding at December 31, 2010. Both leases have renewal options allowing the Company to extend the leases for up to an additional twenty-year term, which the Company does not expect to renew.

Equipment Capital Leases

The Company has entered into a series of capital leases that are due in installments for the purpose of financing the purchase of computer equipment through 2012. Interest charged under these leases ranges from 4.0% to 8.0%, and the leases are collateralized by liens on the computer equipment. The assets are amortized over the lesser of their related

lease terms or their estimated productive lives and such charges are reflected within depreciation expense.

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A summary of future principal obligations under the notes payable, long-term debt and equipment capital lease obligations are as follows (in thousands):

Years Ended December 31,	Notes Payable and Long-Term Debt	Capital Lease Obligations
2011	$ 4,610	$ 1,513
2012	4,714	203
2013	4,832	101
2014	4,966	
2015	87,785	
2016 and thereafter		
Total	$ 106,907	1,817
Imputed interest		(64)
Net present value of equipment capital lease obligations		1,753
Current portion of equipment capital lease obligations		1,463
Long-term portion of equipment capital lease obligations		$ 290

(14) Cumulative Convertible Preferred Stock

During 2005, the Company entered into an Agreement with Fletcher International, Ltd. (this Agreement, as amended to the date hereof, is referred to as the Fletcher Agreement) and issued to Fletcher 30,000 shares of Series D-1 Cumulative Convertible Preferred Stock (Series D-1 Preferred Stock) in a privately-negotiated transaction, receiving $29.8 million in net proceeds. The Fletcher Agreement also provided to Fletcher an option to purchase up to an additional 40,000 shares of additional series of preferred stock from time to time, with each series having a conversion price that would be equal to 122% of an average daily volume-weighted market price of the Company s common stock over a trailing period of days at the time of issuance of that series. In 2007 and 2008, Fletcher exercised this option and purchased 5,000 shares of Series D-2 Cumulative Convertible Preferred Stock (Series D-2 Preferred Stock) for $5.0 million (in December 2007) and 35,000 shares of Series D-3 Cumulative Convertible Preferred Stock (Series D-3 Preferred Stock) for $35.0 million (in February 2008). The shares of Series D-1 Preferred Stock, Series D-2 Preferred Stock and Series D-3 Preferred Stock are sometimes referred to herein as the Series D Preferred Stock.

Dividends on the shares of Series D Preferred Stock must be paid in cash on a quarterly basis. Dividends are payable at a rate equal to the greater of (i) 5.0% per annum or (ii) the three month LIBOR rate on the last day of the immediately preceding calendar quarter plus 2.5% per annum. The Series D Preferred Stock dividend rate was 5.0% at December 31, 2010.

Under the Fletcher Agreement, if a 20-day volume-weighted average trading price per share of the Company s common stock fell below $4.4517 (the Minimum Price), the Company was required to deliver a notice (the Reset Notice) to Fletcher. On November 28, 2008, the volume-weighted average trading price per share of the Company s common stock on the New York Stock Exchange for the previous 20 trading days was calculated to be $4.328, and the Company delivered the Reset Notice to Fletcher in accordance with the terms of the Fletcher Agreement. In the Reset

Notice, the Company elected to reset the conversion prices for the Series D Preferred Stock to the Minimum Price ($4.4517 per share), and Fletcher s rights to redeem the Series D Preferred Stock were terminated. The adjusted conversion price resulting from this election was effective on November 28, 2008.

In addition, under the Fletcher Agreement, the aggregate number of shares of common stock issued or issuable to Fletcher upon conversion or redemption of, or as dividends paid on, the Series D Preferred Stock could not exceed a designated maximum number of shares (the Maximum Number), and such Maximum Number could be increased by Fletcher providing the Company with a 65-day notice of increase, but under no circumstance could the total number of shares of common stock issued or issuable to Fletcher with respect to

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the Series D Preferred Stock ever exceed 15,724,306 shares. The Fletcher Agreement had designated 7,669,434 shares as the original Maximum Number. On November 28, 2008, Fletcher delivered a notice to the Company to increase the Maximum Number to 9,669,434 shares, effective February 1, 2009.

On September 15, 2009, Fletcher delivered a second notice to the Company, intending to increase the Maximum Number of shares of common stock issuable upon conversion of the Series D Preferred Stock from 9,669,434 shares to 11,669,434 shares, to become effective on November 19, 2009. The Company s interpretation of the Fletcher Agreement was that Fletcher had the right to issue only one notice to increase the Maximum Number, which Fletcher had exercised when it delivered its notice to the Company in November 2008. As a result, on November 6, 2009, the Company filed an action in the Court of Chancery of the State of Delaware, styled *ION Geophysical Corporation v. Fletcher International, Ltd.,* seeking a declaration that, under the Fletcher Agreement, Fletcher is permitted to deliver only one notice to increase the Maximum Number and that its second notice is legally invalid. On November 5, 2010, the Court of Chancery issued its opinion in the matter, and held that Fletcher was entitled to deliver multiple notices to increase the Maximum Number of shares of common stock (but not beyond a total of 15,724,306 shares). On November 8, 2010, Fletcher delivered a notice to the Company to increase the Maximum Number to the full 15,724,306 shares, effective January 12, 2011. See further discussion of this action and other legal actions between Fletcher and the Company at Note 19 *Legal Matters.*

On April 8, 2010, Fletcher converted 8,000 of its shares of the outstanding Series D-1 Cumulative Convertible Preferred Stock and all of the outstanding 35,000 shares of the Series D-3 Cumulative Convertible Preferred Stock into a total of 9,659,231 shares of the Company s common stock. The conversion price for these shares was $4.4517 per share, in accordance with the terms of these series of preferred stock. Fletcher continues to own 22,000 shares of the Series D-1 Cumulative Convertible Preferred Stock and 5,000 shares of the Series D-2 Cumulative Convertible Preferred Stock. As a result of the above ruling by the Court of Chancery, under the terms of the Fletcher Agreement, Fletcher s remaining 27,000 shares of Series D Preferred Stock are convertible into 6,065,075 shares of the Company s common stock. The conversion prices and number of shares of common stock to be acquired upon conversion are also subject to customary anti-dilution adjustments. Fletcher remains the sole holder of all of the outstanding shares of Series D Preferred Stock.

(15) Stockholders Equity and Stock-Based Compensation

Stockholder Rights Plan

In December 2008, the Company s Board of Directors adopted a stockholder rights plan. The stockholder rights plan was adopted to give the Company s Board increased power to negotiate in the Company s best interests and to discourage appropriation of control of the Company at a price that was unfair to its stockholders. The stockholder rights plan involved the distribution of one preferred share purchase right as a dividend on each outstanding share of the Company s common stock to all holders of record on January 9, 2009. Each right entitles the holder to purchase one one-thousandth of a share of the Company s Series A Junior Participating Preferred Stock at a purchase price of $21.00 per one one-thousandth of a share of Series A Preferred Stock, subject to adjustment. The rights trade in tandem with the Company s common stock until, and will become exercisable beginning upon a distribution date that will occur shortly following, among other things, the acquisition of 20% or more of the Company s common stock by an acquiring person. The rights plan and the rights will expire in accordance with the terms of the plan on December 29, 2011.

Stock Option Plans

The Company has adopted stock option plans for eligible employees, directors, and consultants, which provide for the granting of options to purchase shares of common stock. As of December 31, 2010, there were 7,721,792 shares issued or committed for issuance under outstanding options under the Company s stock option plans, and 1,648,700 shares available for future grant and issuance.

The options under these plans generally vest in equal annual installments over a four-year period and have a term of ten years. These options are typically granted with an exercise price per share equal to or greater than the current market price and, upon exercise, are issued from the Company s unissued common

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shares. In August 2006, the Compensation Committee of the Board of Directors of the Company approved fixed pre-established quarterly grant dates for all future grants of options.

Transactions under the stock option plans are summarized as follows:

	Option Price per Share	Outstanding	Vested	Available for Grant
January 1, 2008	$ 1.73-$24.63	6,839,641	4,200,442	1,611,044
Increase in shares authorized				1,000,000
Granted	3.00-16.39	1,886,950		(1,886,950)
Vested			913,915	
Exercised	1.73-13.52	(656,166)	(656,166)	
Cancelled/forfeited	3.35-24.63	(587,150)	(308,850)	378,800
Restricted stock granted out of option plans				(454,983)
Issuance of inducement stock options in acquisition	14.10	410,000		
Restricted stock forfeited or cancelled for employee minimum income taxes and returned to the plans				187,496
December 31, 2008	1.73-16.39	7,893,275	4,149,341	835,407
Granted	1.07-5.44	635,750		(635,750)
Vested			1,089,478	
Exercised	1.73-3.00	(9,837)	(9,837)	
Cancelled/forfeited	3.00-16.39	(753,000)	(186,300)	564,950
Restricted stock granted out of option plans				(568,874)
Restricted stock forfeited or cancelled for employee minimum income taxes and returned to the plans				215,140
December 31, 2009	1.07-16.39	7,766,188	5,042,682	410,873
Increase in shares authorized				2,500,000
Granted	3.42-7.19	1,249,900		(1,249,900)
Vested			1,370,897	
Exercised	1.07-7.31	(323,610)	(323,610)	
Cancelled/forfeited	1.07-16.12	(970,686)	(700,561)	674,363
Restricted stock granted out of option plans				(762,680)
Restricted stock forfeited or cancelled for employee minimum income taxes and returned to the plans				76,044
December 31, 2010	$ 2.49-$16.39	7,721,792	5,389,408	1,648,700

Stock options outstanding at December 31, 2010 are summarized as follows:

Option Price per Share	Outstanding	Weighted Average Exercise Price of Outstanding Options	Weighted Average Remaining Contract Life	Vested	Weighted Average Exercise Price of Vested Options
$2.49 - $3.85	1,557,517	$ 2.99	6.6	883,142	$ 2.97
4.11 - 6.42	2,316,250	$ 5.63	4.6	1,741,813	$ 5.79
6.75 - 10.50	2,449,725	$ 8.11	6.5	1,551,825	$ 8.64
10.81 - 16.39	1,398,300	$ 14.25	6.4	1,212,628	$ 14.10
Totals	7,721,792	$ 7.44	6.1	5,389,408	$ 8.01

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Additional information related to the Company s stock options is as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value (000 s)
Total outstanding at January 1, 2010	7,766,188	$ 7.65		6.3	
Options granted	1,249,900	$ 6.41	$ 3.81		
Options exercised	(323,610)	$ 3.31			
Options cancelled	(700,561)	$ 9.49			
Options forfeited	(270,125)	$ 8.30			
Total outstanding at December 31, 2010	7,721,792	$ 7.44		6.1	$ 17,144
Options exercisable and vested at December 31, 2010	5,389,408	$ 8.01		4.8	$ 10,375

The total intrinsic value of options exercised during 2010, 2009 and 2008 was $0.9 million, less than $0.1 million, and approximately $4.8 million, respectively. Cash received from option exercises under all share-based payment arrangements for 2010, 2009 and 2008 was $1.1 million, less than $0.1 million and $6.3 million, respectively. The weighted average grant date fair value for stock option awards granted during 2010, 2009 and 2008 was $3.81, $3.17, and $3.02 per share, respectively.

Restricted Stock and Restricted Stock Unit Plans

The Company has adopted restricted stock plans which provide for the award of up to 300,000 shares of common stock to key officers and employees. In addition, the Company has issued restricted stock and restricted stock units under the Company s 2004 Long-Term Incentive Plan, 2000 Restricted Stock Plan (which expired in 2010), 1998 Restricted Stock Plan (which expired in 2008) and other applicable plans. Restricted stock units are awards that obligate the Company to issue a specific number of shares of common stock in the future if continued service vesting requirements are met. Non-forfeitable ownership of the common stock will vest over a period as determined by the Company in its sole discretion, generally in equal annual installments over a three-year period. Shares of restricted stock awarded may not be sold, assigned, transferred, pledged or otherwise encumbered by the grantee during the vesting period.

The status of the Company s restricted stock and restricted stock unit awards for 2010 is as follows:

	Number of Shares/Units
Total nonvested at January 1, 2010	778,005
Granted	772,680
Vested	(490,961)
Forfeited	(82,546)
Total nonvested at December 31, 2010	977,178

At December 31, 2010, the intrinsic value of restricted stock and restricted stock unit awards was approximately $8.3 million. The weighted average grant date fair value for restricted stock and restricted stock unit awards granted during 2010, 2009 and 2008 was $6.30, $4.79, and $5.79 per share. The total fair value of shares vested during 2010, 2009 and 2008 was $3.3 million, $4.7 million, and $5.3 million, respectively.

Employee Stock Purchase Plan

In June 2010, the Company adopted an Employee Stock Purchase Plan (ESPP) to replace the prior ESPP, which terminated on December 31, 2008. The ESPP allows all eligible employees to authorize payroll

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deductions at a rate of 1% to 10% of base compensation (or a fixed amount per pay period) for the purchase of the Company s common stock. Each participant is limited to purchase no more than 500 shares per offering period or 1,000 shares annually. Additionally, no participant may purchase shares in any calendar year that exceeds $10,000 in fair market value based on the fair market value of the stock on the offering commencement date. The purchase price of the common stock is the lesser of 85% of the closing price on the first day of the applicable offering period (or most recently preceding trading day) or 85% of the closing price on the last day of the offering period (or most recently preceding trading day). Each offering period is six months and commences on February 1 and August 1 of each year. The ESPP is considered a compensatory plan under ASC 718, and the Company recorded compensation expense of approximately $0.1 million during 2010. The expense represents the estimated fair value of the look-back purchase option. The fair value was determined using the Black-Scholes option pricing model and was recognized over the purchase period. The total number of shares of common stock authorized and available for issuance under ESPP is 1,500,000. The maximum number of shares of common stock that may be purchased for each offering period is 100,000 (200,000 annually).

Stock Appreciation Rights Plan

The Company has adopted a stock appreciation rights plan which provides for the award of stock appreciation rights (SARs) to directors and selected key employees and consultants. The awards under this plan are subject to the terms and conditions set forth in agreements between the Company and the holders. The exercise price per SAR is not to be less than one hundred percent (100%) of the fair market value of a share of common stock on the date of grant of the SAR. The term of each SAR shall not exceed ten years from the grant date. Upon exercise of a SAR, the holder shall receive a cash payment in an amount equal to the spread specified in the SAR agreement for which the SAR is being exercised. In no event will any shares of common stock be issued, transferred or otherwise distributed under the plan.

As of December 31, 2010, the Company had outstanding 375,000 SAR awards to two individuals with a weighted average exercise price of $7.98. The Company recorded less than $0.1 million, $0.8 million and $0.2 million, respectively, of share-based compensation expense during 2010, 2009 and 2008 related to employee stock appreciation rights. Pursuant to ASC 718, the stock appreciation rights are considered liability awards and as such, these amounts are accrued in the liability section of the balance sheet.

Valuation Assumptions

The Company calculated the fair value of each option and SAR award on the date of grant using the Black-Scholes option pricing model. The following assumptions were used for each respective period:

	Years Ended December 31		
	2010	**2009**	**2008**
Risk-free interest rates	1.5% 2.5%	1.6% 2.4%	1.5% 3.4%
Expected lives (in years)	5.5	3.6 5.5	4.7 5.0
Expected dividend yield	0%	0%	0%
Expected volatility	67.4% 71.6%	75.0% 91.9%	44.7% 83.2%

The computation of expected volatility during 2010, 2009 and 2008 was based on an equally weighted combination of historical volatility and market-based implied volatility. Historical volatility was calculated from historical data for a period of time approximately equal to the expected term of the option award, starting from the date of grant. Market-based implied volatility was derived from traded options on the Company s common stock having a term of six

months. The Company s computation of expected life in 2010, 2009 and 2008 was determined based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards, vesting schedules, and expectations of future employee behavior. The risk-free interest rate assumption is based upon the U.S. Treasury yield curve in effect at the time of grant for periods corresponding with the expected life of the option.

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(16) Income Taxes

The sources of income (loss) before income taxes are as follows (in thousands):

	Years Ended December 31,		
	2010	2009	2008
Domestic	$ (55,547)	$ (91,646)	$ (82,811)
Foreign	45,651	(38,398)	(137,096)
Total	$ (9,896)	$ (130,044)	$ (219,907)

Components of income taxes are as follows (in thousands):

	Years Ended December 31,		
	2010	2009	2008
Current:			
Federal	$ (3,489)	$ 526	$ 58
State and local	665	74	208
Foreign	7,559	17,565	18,414
Deferred (U.S. and foreign)	22,207	(38,150)	(17,549)
Total income tax expense (benefit)	$ 26,942	$ (19,985)	$ 1,131

A reconciliation of the expected income tax expense on income (loss) before income taxes using the statutory federal income tax rate of 35% for 2010, 2009 and 2008 to income tax expense is as follows (in thousands):

	Years Ended December 31,		
	2010	2009	2008
Expected income tax benefit at 35%	$ (3,464)	$ (45,515)	$ (76,967)
Alternate minimum tax provision	67	526	58
Foreign taxes (tax rate differential and foreign tax differences)	(11,914)	4,288	2,367
Formation of INOVA Geophysical	10,507		
Nondeductible financings	1,015	12,646	
Nondeductible goodwill			84,756
State and local taxes	665	74	269
Nondeductible expenses	492	1,465	261
Deferred tax asset valuation allowance:			
Deferred tax asset valuation allowance on formation of INOVA Geophysical	20,213		
	8,303		

Deferred tax asset valuation allowance on equity in losses of INOVA Geophysical			
Deferred tax asset valuation allowance on write-down of RXT shares	2,677		
Deferred tax asset valuation allowance on operations	(1,619)	6,531	(9,613)
Total income tax expense (benefit)	$ 26,942	$ (19,985)	$ 1,131

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The tax effects of the cumulative temporary differences resulting in the net deferred income tax asset (liability) are as follows (in thousands):

	December 31, 2010	2009
Current deferred:		
Deferred income tax assets:		
Accrued expenses	$ 8,600	$ 5,428
Allowance accounts	3,725	10,965
Inventory	483	(257)
Total current deferred income tax asset	12,808	16,136
Valuation allowance	(2,101)	(5,405)
Net current deferred income tax asset	10,707	10,731
Deferred income tax liabilities:		
Unbilled receivables	(15,723)	(4,945)
Net current deferred income tax (liability) asset	$ (5,016)	$ 5,786
Non-current deferred:		
Deferred income tax assets:		
Net operating loss carryforward	$ 6,849	$ 26,268
Capital loss carryforward	19,005	520
Equity method investment	25,407	
Cost method investments	3,384	707
Basis in research and development	2,804	26,087
Basis in property, plant and equipment	2,271	3,492
Tax credit carryforwards and other	9,770	10,609
Total non-current deferred income tax asset	69,490	67,683
Valuation allowance	(60,599)	(27,721)
Net non-current deferred income tax asset	8,891	39,962
Deferred income tax liabilities:		
Basis in identified intangibles	(601)	(14,802)
Net non-current deferred income tax asset	$ 8,290	$ 25,160

In 2002, the Company established a valuation allowance for substantially all of its deferred tax assets. Since that time, the Company has continued to record a valuation allowance. In 2010, additional valuation allowance was established on certain U.S. deferred tax assets related to the Company s investment in INOVA Geophysical and the write-down of RXT shares. The valuation allowance was calculated in accordance with the provisions of ASC 740-10, *Accounting*

for Income Taxes, which requires that a valuation allowance be established or maintained when it is more likely than not that all or a portion of deferred tax assets will not be realized. The Company will continue to reserve for a significant portion of U.S. net deferred tax assets of $7.2 million until there is sufficient evidence to warrant reversal. In the event the Company s expectations of future operating results change, an additional valuation allowance may be required to be established on the Company s existing unreserved net U.S. deferred tax assets. At December 31, 2010, the Company had net operating loss carry-forwards of approximately $23.2 million, the majority of which expires beyond 2027.

As of December 31, 2010, the Company has no significant unrecognized tax benefits and does not expect to recognize any significant increases in unrecognized tax benefits during the next twelve month period. Interest and penalties, if any, related to unrecognized tax benefits are recorded in income tax expense.

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The Company s U.S. federal tax returns for 2007 and subsequent years remain subject to examination by tax authorities. The Company is no longer subject to IRS examination for periods prior to 2007, although carryforward attributes that were generated prior to 2007 may still be adjusted upon examination by the IRS if they either have been or will be used in a future period. In the Company s foreign tax jurisdictions, tax returns for 2008 and subsequent years generally remain open to examination.

United States income taxes have not been provided on the cumulative undistributed earnings of the Company s foreign subsidiaries in the amount of approximately $132.5 million as it is the Company s intention to reinvest such earnings indefinitely. These foreign earnings could become subject to additional tax if remitted, or deemed remitted, to the United States as a dividend; however, it is not practicable to estimate the additional amount of taxes payable.

(17) Operating Leases

Lessee. The Company leases certain equipment, offices, and warehouse space under non-cancelable operating leases. Rental expense was $17.2 million, $16.7 million, and $14.8 million for 2010, 2009 and 2008, respectively.

A summary of future rental commitments over the next five years under non-cancelable operating leases is as follows (in thousands):

Years Ended December 31,	
2011	$ 15,416
2012	9,693
2013	3,410
2014	1,273
2015	1,100
Total	$ 30,892

(18) Benefit Plans

401(k)

The Company has a 401(k) retirement savings plan, which covers substantially all employees. Employees may voluntarily contribute up to 60% of their compensation, as defined, to the plan. Effective June 1, 2000, the Company adopted a company matching contribution to the 401(k) plan. The Company matched the employee contribution at a rate of 50% of the first 6% of compensation contributed to the plan. In April 2009, the Company suspended its match to employee s 401(k) plan contributions, but reinstated its matching contributions in April 2010. Company contributions to the plans were $0.9 million, $0.7 million, and $1.6 million, during 2010, 2009 and 2008, respectively.

Supplemental executive retirement plan

The Company previously had maintained a non-qualified, supplemental executive retirement plan (SERP) for its executives. The SERP provided for certain compensation to become payable on the participants death, retirement or total disability as set forth in the plan. The only remaining obligations under this plan are the scheduled benefit payments to the spouse of a deceased former executive. The present value of the expected obligation to the spouse has

been provided for in the Company s balance sheet.

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(19) Legal Matters

WesternGeco

On June 12, 2009, WesternGeco L.L.C. (WesternGeco) filed a lawsuit against the Company in the United States District Court for the Southern District of Texas, Houston Division. In the lawsuit, styled *WesternGeco L.L.C. v. ION Geophysical Corporation*, WesternGeco alleges that the Company has infringed several United States patents regarding marine seismic streamer steering devices that are owned by WesternGeco. WesternGeco is seeking unspecified monetary damages and an injunction prohibiting the Company from making, using, selling, offering for sale or supplying any infringing products in the United States. Based on the Company s review of the lawsuit filed by WesternGeco and the WesternGeco patents at issue, the Company believes that its products do not infringe any WesternGeco patents, that the claims asserted against the Company by WesternGeco are without merit and that the ultimate outcome of the claims against it will not result in a material adverse effect on the Company s financial condition or results of operations. The Company intends to defend the claims against it vigorously.

On June 16, 2009, the Company filed an answer and counterclaims against WesternGeco, in which the Company denies that it has infringed WesternGeco s patents and asserts that the WesternGeco patents are invalid or unenforceable. The Company also asserted that WesternGeco s Q-Marine system, components and technology infringe upon a United States patent owned by the Company related to marine seismic streamer steering devices. The claims by the Company also assert that WesternGeco tortiously interfered with the Company s relationship with its customers. In addition, the Company claims that the lawsuit by WesternGeco is an illegal attempt by WesternGeco to control and restrict competition in the market for marine seismic surveys performed using laterally steerable streamers. In its counterclaims, the Company is requesting various remedies and relief, including a declaration that the WesternGeco patents are invalid or unenforceable, an injunction prohibiting WesternGeco from making, using, selling, offering for sale or supplying any infringing products in the United States, a declaration that the WesternGeco patents should be co-owned by the Company, and an award of unspecified monetary damages.

In June 2010, WesternGeco filed a lawsuit against various subsidiaries and affiliates of Fugro N.V. (Fugro), a seismic contractor customer of the Company, accusing the defendants of infringing the same United States patents regarding marine seismic streamer steering devices by planning to use certain equipment purchased from the Company on a survey located outside of U.S. territorial waters. The court approved the consolidation of the Fugro case with the case against the Company. The defendants in the Fugro case have filed a motion to dismiss the lawsuit.

Fletcher

The Company is involved in two lawsuits filed in Delaware involving Fletcher, the holder of shares of the Series D Preferred Stock.

Under the Company s February 2005 agreement with Fletcher, the aggregate number of shares of common stock issued or issuable to Fletcher upon conversion of the Series D Preferred Stock could not exceed a designated maximum number of shares (the Maximum Number), and such Maximum Number could be increased by Fletcher providing the Company with a 65-day notice of increase. In November 2008, Fletcher exercised its right to increase the Maximum Number from 7,669,434 shares to 9,669,434 shares. On September 15, 2009, Fletcher delivered a second notice to the Company, intending to increase the Maximum Number of shares of common stock issuable upon conversion of the Series D Preferred Stock from 9,669,434 shares to 11,669,434 shares. The Company s interpretation of the agreement with Fletcher was that Fletcher had the right to issue only one notice to increase the Maximum Number, which Fletcher had exercised in November 2008. As a result, on November 6, 2009, the Company filed an action in the Court of Chancery of the State of Delaware, styled *ION Geophysical Corporation v. Fletcher International, Ltd.,*

seeking a declaration that, under the agreement, Fletcher was permitted to deliver only one notice to increase the Maximum Number and that its second notice was legally invalid. Fletcher filed an answer and counterclaim, seeking specific performance and reimbursement and indemnification for its costs and expenses that it claimed it was entitled to under the 2005 agreement. On November 5, 2010, the Court of Chancery issued its opinion

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in the matter, and held that Fletcher was entitled to deliver multiple notices to increase the Maximum Number of shares of common stock (but not beyond a total of 15,724,306 shares). The Court also ruled that the Company is not required to indemnify Fletcher for its fees, costs and expenses incurred in connection with the proceedings. On November 8, 2010, Fletcher sent the Company a notice to increase the Maximum Number of shares to 15,724,306 shares, effective January 12, 2011. Currently, Fletcher s remaining outstanding shares of Series D Preferred Stock are convertible into up to 6,065,075 shares of ION common stock.

On November 25, 2009, Fletcher filed a lawsuit against the Company and certain of its directors in the Delaware Court of Chancery. In the lawsuit, styled *Fletcher International, Ltd. v. ION Geophysical Corporation, f/k/a Input/Output, Inc., ION International S.à r.l., James M. Lapeyre, Bruce S. Appelbaum, Theodore H. Elliott, Jr., Franklin Myers, S. James Nelson, Jr., Robert P. Peebler, John Seitz, G. Thomas Marsh And Nicholas G. Vlahakis,* Fletcher alleged, among other things, that the Company violated Fletcher s consent rights contained in the Series D Preferred Stock Certificates of Designation, by having ION Sàrl issuing a convertible promissory note to the Bank of China, New York Branch, in connection with a bridge loan funded in October 2009 by Bank of China, and that the directors violated their fiduciary duty to the Company by allowing ION Sàrl to issue the convertible note without Fletcher s consent. Fletcher sought a court order requiring ION Sàrl to repay the $10 million advanced to ION Sàrl under the bridge loan and unspecified monetary damages. On March 24, 2010, the presiding judge in the case denied Fletcher s request for the court order. In a Memorandum Opinion issued on May 28, 2010 in response to a motion for partial summary judgment, the judge dismissed all of Fletcher s claims against the named Company directors but also concluded that, because the bridge loan note issued by ION Sàrl was convertible into ION common stock, Fletcher had the right to consent to the issuance of the note and that the Company violated Fletcher s consent right by ION Sàrl issuing the note without Fletcher s consent. In December 2010, the presiding judge in the case recused himself from the case without explanation and a new presiding judge was appointed to the case. The holder of the convertible note issued by ION Sàrl never exercised its right to convert the note, and the note was paid in full in March 2010. The Company believes that the remaining claims asserted by Fletcher in the lawsuit are without merit. The Company further believes that the monetary damages suffered by Fletcher as a result of ION Sàrl issuing the bridge loan note without Fletcher s consent are nonexistent or nominal, and that the ultimate outcome of the lawsuit will not result in a material adverse effect on the Company s financial condition or results of operations. The Company intends to defend the remaining claims against it in this lawsuit vigorously.

Greatbatch

In 2002, the Company filed a lawsuit against operating subsidiaries of battery manufacturer Greatbatch, Inc., including its Electrochem division (collectively Greatbatch), in the 24th Judicial District Court for the Parish of Jefferson in the State of Louisiana. In the lawsuit, styled *Input/Output, Inc. and I/O Marine Systems, Inc. v. Wilson Greatbatch Technologies, Inc., Wilson Greatbatch, Ltd. d/b/a Electrochem Lithium Batteries, and WGL Intermediate Holdings, Inc., Civil Action No. 578-881, Division A ,* the Company alleged that Greatbatch had fraudulently misappropriated the Company s product designs and other trade secrets related to the batteries and battery pack used in the Company s DigiBIRD® marine towed streamer vertical control device and used the Company s confidential information to manufacture and market competing batteries and battery packs. After a trial, on October 1, 2009 the jury concluded that Greatbatch had committed fraud, violated the Louisiana Unfair Trade Practices Act and breached a trust and nondisclosure agreement between Greatbatch and the Company, and awarded the Company approximately $21.7 million in compensatory damages. A judgment was entered consistent with the jury verdict. In December 2010, the Company and Greatbatch settled the lawsuit, pursuant to which Greatbatch paid the Company $25.0 million in full satisfaction of the judgment. Upon the cash receipt, the Company recorded a gain on legal settlement of $24.5 million, net of fees paid to attorneys.

Sercel

On January 29, 2010, the jury in a patent infringement lawsuit filed by the Company against seismic equipment provider Sercel, Inc. in the United States District Court for the Eastern District of Texas returned a

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verdict in the Company s favor. In the lawsuit, styled *Input/Output, Inc. et al v. Sercel, Inc., (5-06-cv-00236)*, the Company alleged that Sercel s 408, 428 and SeaRay digital seismic sensor units infringe the Company s United States Patent No. 5,852,242, which is incorporated in the Company s VectorSeis® sensor technology. Products of the Company or INOVA Geophysical that use the VectorSeis technology include the System Four®, Scorpion®, FireFly®, and VectorSeis Ocean seismic acquisition systems. After a two-week trial, the jury concluded that Sercel infringed the Company s patent and that the Company s patent was valid, and the jury awarded the Company $25.2 million in compensatory past damages. In response to post-verdict motions made by the parties, on September 16, 2010, the presiding judge issued a series of rulings that (a) granted the Company s motion for a permanent injunction to be issued prohibiting the manufacture, use or sale of the infringing Sercel products, (b) confirmed that the Company s patent was valid, (c) confirmed that the jury s finding of infringement was supported by the evidence and (d) disallowed $5.4 million of lost profits that were based on infringing products that were manufactured and delivered by Sercel outside of the United States, but were offered for sale by Sercel in the United States and involved underlying orders and payments received by Sercel in the United States. In addition, the judge concluded that the evidence supporting the jury s finding that the Company was entitled to be awarded $9.0 million in lost profits associated with certain infringing pre-verdict marine sales by Sercel was too speculative and therefore disallowed that award of lost profits. As a result of the judge s ruling, the Company is now entitled to be awarded an additional amount of damages equal to a reasonable royalty on the infringing pre-verdict Sercel marine sales. After the Company learned that Sercel continued to make sales of infringing products after the January 2010 jury verdict was rendered, the Company filed motions with the court to seek additional compensatory damages for the post-verdict infringing sales and enhanced damages as a result of the willful nature of Sercel s post-verdict infringement. On February 16, 2011, the Court entered a final judgment and permanent injunction in the case. The final judgment awarded the Company $10.7 million in damages, plus interest, and the permanent injunction prohibits Sercel and parties acting in concert with Sercel from making, using, offering to sell, selling, or importing in the United States (which includes territorial waters of the United States) Sercel s 408UL, 428XL and SeaRay digital sensor units, and all other products that are only colorably different from those products. The Court ordered that the additional damages to be paid by Sercel as a reasonable royalty on the infringing pre-verdict Sercel marine sales and the additional damages to be paid by Sercel resulting from post-verdict infringing sales be determined in a separate future proceeding. The Company has not recorded any amounts related to this gain contingency as of December 31, 2010.

Other

The Company has been named in various other lawsuits or threatened actions that are incidental to its ordinary business. Litigation is inherently unpredictable. Any claims against the Company, whether meritorious or not, could be time-consuming, cause the Company to incur costs and expenses, require significant amounts of management time and result in the diversion of significant operational resources. The results of these lawsuits and actions cannot be predicted with certainty. Management currently believes that the ultimate resolution of these matters will not have a material adverse impact on the financial condition, results of operations or liquidity of the Company.

(20) Restructuring Activities

Due to the formation of INOVA Geophysical, the Company consolidated certain of its Stafford-based operations, which resulted in the Company permanently ceasing to use certain leased facilities as of March 31, 2010. The Company determined that the fair value of its remaining costs to be incurred under its lease of these facilities was approximately $8.2 million. After considering all deferred items on the Company s balance sheet associated with this lease, the Company recorded a charge to its loss on disposition of land division of $5.0 million. For the nine months from April 1, 2010 through December 31, 2010, the Company had a beginning liability of $8.2 million, accrued approximately $0.4 million related to accretion expense and made cash payments of $1.9 million, resulting in a remaining liability of $6.7 million as of December 31, 2010.

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(21) Selected Quarterly Information (Unaudited)

A summary of selected quarterly information is as follows (in thousands, except per share amounts):

	Three Months Ended			
Year Ended December 31, 2010	**March 31**	**June 30**	**September 30**	**December 31**
Product revenues	$ 40,242	$ 39,433	$ 34,299	$ 51,228
Service revenues	48,477	35,953	87,295	107,395
Total net revenues	88,719	75,386	121,594	158,623
Gross profit	22,366	28,062	48,948	66,357
Income (loss) from operations	(10,977)	5,984	23,369	34,471
Interest expense, net, including an $18.8 million write-off of debt discount and debt issuance costs in 1Q	(25,643)	(1,373)	(1,861)	(1,893)
Loss on disposition of land division	(38,115)			
Fair value adjustment of warrant	12,788			
Equity in losses of INOVA Geophysical		(179)	(8,004)	(15,541)
Gain on legal settlement				24,500
Impairment of cost method investment				(7,650)
Other income (expense)	3,217	(799)	(3,229)	1,039
Income tax expense (benefit)	12,160	2,174	(1,934)	14,542
Preferred stock dividends	875	385	338	338
Net income (loss) applicable to common shares	$ (71,765)	$ 1,074	$ 11,871	$ 20,046
Net income (loss) per share:				
Basic	$ (0.60)	$ 0.01	$ 0.08	$ 0.13
Diluted	$ (0.60)	$ 0.01	$ 0.08	$ 0.13

	Three Months Ended			
Year Ended December 31, 2009	**March 31**	**June 30**	**September 30**	**December 31**
Product revenues	$ 59,476	$ 52,038	$ 51,263	$ 74,887
Service revenues	47,414	37,219	51,107	46,377
Total net revenues	106,890	89,257	102,370	121,264
Gross profit	33,696	29,976	34,629	33,837
Impairment of intangible assets	38,044			
Income (loss) from operations	(44,576)	(7,511)	(1,559)	(4,570)
Interest expense, net, including amortization of a non-cash debt discount in 4Q	(6,933)	(6,349)	(5,929)	(14,739)
Fair value adjustment of warrant				(29,401)
Impairment of cost method investment				(4,454)
Other income (expense)	(22)	(6,381)	1,669	711

Income tax expense (benefit)	(13,963)	(4,510)	131	(1,643)
Preferred stock dividends	875	875	875	875
Net income (loss) applicable to common shares	$ (38,443)	$ (16,606)	$ (6,825)	$ (51,865)
Net income (loss) per basic and diluted share	$ (0.39)	$ (0.16)	$ (0.06)	$ (0.44)

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(22) Certain Relationships and Related Party Transactions

In April 2010, the Company advanced $5.0 million to INOVA Geophysical for its short-term capital purposes under a short-term promissory note. The note was scheduled to mature on August 31, 2010 and accrued interest at an annual rate equal to the London Interbank Offered Rate (LIBOR) plus 350 basis points. INOVA Geophysical repaid the outstanding balance on this note of $5.0 million in August 2010. Additionally, BGP advanced $5.0 million to INOVA Geophysical during the second quarter on similar terms and INOVA Geophysical repaid the amount in full.

In May 2010, the Company entered into a second promissory note arrangement with INOVA Geophysical providing for potential borrowings up to $4.5 million, under which INOVA Geophysical borrowed $1.5 million. This note matured on July 30, 2010 and accrued interest at an annual rate equal to LIBOR plus 350 basis points. INOVA Geophysical repaid the outstanding balance on this second note of $1.5 million in July 2010. The purpose of these advances was to provide short-term capital to INOVA Geophysical prior to INOVA Geophysical s obtaining its own line of credit, which it obtained in June 2010.

The Company has also entered into a support and transition agreement to provide INOVA Geophysical with certain administrative services including tax, legal, information technology, treasury, human resources, bookkeeping, facilities and marketing services. The terms of the arrangement provide for INOVA Geophysical to pay approximately $0.3 million per month (beginning in April 2010) for services and to reimburse the Company for third-party and lease costs incurred by the Company directly related to the administrative support of INOVA Geophysical. The term of the agreement is for two years and will automatically renew for one-year periods, unless either party provides notice of its intent to terminate the agreement. At December 31, 2010, approximately $3.0 million was owed by INOVA Geophysical to the Company and reflected in the balance of Accounts Receivable, net. The majority of these shared services provided by the Company are reflected as reductions to general and administrative expense.

For 2010, 2009 and 2008, the Company recorded revenues from BGP of $16.9 million, $32.2 million and $17.6 million, respectively. Receivables due from BGP were $3.0 million and $9.2 million at December 31, 2010 and 2009, respectively. BGP owned approximately 15.6% of the Company s outstanding common stock as of December 31, 2010.

Mr. James M. Lapeyre, Jr. is the chairman and a significant equity owner of Laitram, L.L.C. (Laitram) and has served as president of Laitram and its predecessors since 1989. Laitram is a privately-owned, New Orleans-based manufacturer of food processing equipment and modular conveyor belts. Mr. Lapeyre and Laitram together owned approximately 6.0% of the Company s outstanding common stock as of December 31, 2010.

The Company acquired DigiCourse, Inc., the Company s marine positioning products business, from Laitram in 1998 and renamed it I/O Marine Systems, Inc. In connection with that acquisition, the Company entered into a Continued Services Agreement with Laitram under which Laitram agreed to provide the Company certain accounting, software, manufacturing, and maintenance services. Manufacturing services consist primarily of machining of parts for the Company s marine positioning systems. The term of this agreement expired in September 2001 but the Company continues to operate under its terms. In addition, when the Company requests, the legal staff of Laitram advises the Company on certain intellectual property matters with regard to the Company s marine positioning systems. Under a lease of commercial property dated February 1, 2006, between Lapeyre Properties L.L.C. (an affiliate of Laitram) and ION, the Company agreed to lease certain office and warehouse space from Lapeyre Properties until January 2011. During 2010, the Company paid Laitram a total of approximately $3.1 million, which consisted of approximately $2.3 million for manufacturing services, $0.7 million for rent and other pass-through third party facilities charges, and $0.1 million for other services. During 2009 and 2008, the Company paid Laitram a total of approximately $4.0 million and $4.3 million, respectively, for these services. In the opinion of the Company s management, the terms

of these services are fair and reasonable and as favorable to the Company as those that could have been obtained from unrelated third parties at the time of their performance.

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SCHEDULE II

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES
VALUATION AND QUALIFYING ACCOUNTS

Year Ended December 31, 2008	Balance at Beginning of Year	Acquired Reserves during the period	Charged (Credited) to Costs and Expenses	Deductions	Balance at End of Year
			(In thousands)		
Allowances for doubtful accounts	$ 2,675	$	$ 4,852	$ (1,842)	$ 5,685
Allowances for doubtful notes	3,351			(3,351)	
Warranty	13,439	845	4,624	(8,382)	10,526
Valuation allowance on deferred tax assets	37,413		(9,613)	1,298	29,098

Year Ended December 31, 2009	Balance at Beginning of Year	Charged (Credited) to Costs and Expenses	Deductions	Balance at End of Year
		(In thousands)		
Allowances for doubtful accounts	$ 5,685	$ 3,457	$ (3,468)	$ 5,674
Allowances for doubtful notes		71		71
Warranty	10,526	(2,121)	(3,317)	5,088
Valuation allowance on deferred tax assets	29,098	6,531	(2,503)	33,126

Year Ended December 31, 2010	Balance at Beginning of Year	Disposed Reserves During the Period	Charged (Credited) to Costs and Expenses	Deductions	Balance at End of Year
			(In thousands)		
Allowances for doubtful accounts	$ 5,674	$ (4,273)	$ 1,689	$ (2,245)	$ 845
Allowances for doubtful notes	71	(71)			
Warranty	5,088	(3,821)	443	(926)	784
Valuation allowance on deferred tax assets	33,126	(15,897)	45,471		62,700

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EXHIBIT INDEX

3.1	Restated Certificate of Incorporation dated September 24, 2007 filed on September 24, 2007 as Exhibit 3.4 to the Company s Current Report on Form 8-K and incorporated herein by reference.
3.2	Amended and Restated Bylaws of ION Geophysical Corporation filed on September 24, 2007 as Exhibit 3.5 to the Company s Current Report on Form 8-K and incorporated herein by reference.
3.3	Certificate of Ownership and Merger merging ION Geophysical Corporation with and into Input/Output, Inc. dated September 21, 2007, filed on September 24, 2007 as Exhibit 3.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.1	Certificate of Rights and Designations of Series D-1 Cumulative Convertible Preferred Stock, dated February 16, 2005 and filed on February 17, 2005 as Exhibit 3.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.2	Certificate of Elimination of Series B Preferred Stock dated September 24, 2007, filed on September 24, 2007 as Exhibit 3.2 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.3	Certificate of Elimination of Series C Preferred Stock dated September 24, 2007, filed on September 24, 2007 as Exhibit 3.3 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.4	Certificate of Designation of Series D-2 Cumulative Convertible Preferred Stock dated December 6, 2007, filed on December 6, 2007 as Exhibit 3.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.5	Certificate of Designations of Series A Junior Participating Preferred Stock of ION Geophysical Corporation effective as of December 31, 2008, filed on January 5, 2009 as Exhibit 3.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
4.6	Form of Senior Indenture, filed on December 19, 2008 as Exhibit 4.3 to the Company s Registration Statement on Form S-3 (Registration No. 333-156362) and incorporated herein by reference.
4.7	Form of Senior Note, filed on December 19, 2008 as Exhibit 4.4 to the Company s Registration Statement on Form S-3 (Registration No. 333-156362) and incorporated herein by reference.
4.8	Form of Subordinated Indenture, filed on December 19, 2008 as Exhibit 4.5 to the Company s Registration Statement on Form S-3 (Registration No. 333-156362) and incorporated herein by reference.
4.9	Form of Subordinated Note, filed on December 19, 2008 as Exhibit 4.6 to the Company s Registration Statement on Form S-3 (Registration No. 333-156362) and incorporated herein by reference.
**10.1	Amended and Restated 1990 Stock Option Plan, filed on June 9, 1999 as Exhibit 4.2 to the Company s Registration Statement on Form S-8 (Registration No. 333-80299), and incorporated herein by reference.
10.2	Office and Industrial/Commercial Lease dated June 2005 by and between Stafford Office Park II, LP as Landlord and Input/Output, Inc. as Tenant, filed on March 31, 2006 as Exhibit 10.2 to the Company s Annual Report on Form 10-K for the year ended December 31, 2005, and incorporated herein by reference.
10.3	Office and Industrial/Commercial Lease dated June 2005 by and between Stafford Office Park District as Landlord and Input/Output, Inc. as Tenant, filed on March 31, 2006 as Exhibit 10.3 to the Company s Annual Report on Form 10-K for the year ended December 31, 2005, and incorporated herein by reference.
**10.4	Input/Output, Inc. Amended and Restated 1996 Non-Employee Director Stock Option Plan, filed on June 9, 1999 as Exhibit 4.3 to the Company s Registration Statement on Form S-8 (Registration No. 333-80299), and incorporated herein by reference.

**10.5	Amendment No. 1 to the Input/Output, Inc. Amended and Restated 1996 Non-Employee Director Stock Option Plan dated September 13, 1999 filed on November 14, 1999 as Exhibit 10.4 to the Company s Quarterly Report on Form 10-Q for the fiscal quarter ended August 31, 1999 and incorporated herein by reference.
**10.6	Employment Agreement dated effective as of May 22, 2006, between Input/Output, Inc. and R. Brian Hanson filed on May 1, 2006 as Exhibit 10.1 to the Company s Form 8-K, and incorporated herein by reference.

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**10.7	First Amendment to Employment Agreement dated as of August 20, 2007 between Input/Output, Inc. and R. Brian Hanson, filed on August 21, 2007 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.8	Second Amendment to Employment Agreement, dated as of December 1, 2008, between ION Geophysical Corporation and R. Brian Hanson, filed on January 29, 2009 as Exhibit 10.2 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.9	Input/Output, Inc. Employee Stock Purchase Plan, filed on March 28, 1997 as Exhibit 4.4 to the Company s Registration Statement on Form S-8 (Registration No. 333-24125), and incorporated herein by reference.
**10.10	Fifth Amended and Restated 2004 Long-Term Incentive Plan, filed as Appendix A to the definitive proxy statement for the 2010 Annual Meeting of Stockholders of ION Geophysical Corporation, filed on April 21, 2010, and incorporated herein by reference.
10.11	Registration Rights Agreement dated as of November 16, 1998, by and among the Company and The Laitram Corporation, filed on March 12, 2004 as Exhibit 10.7 to the Company s Annual Report on Form 10-K for the year ended December 31, 2003, and incorporated herein by reference.
**10.12	Input/Output, Inc. 1998 Restricted Stock Plan dated as of June 1, 1998, filed on June 9, 1999 as Exhibit 4.7 to the Company s Registration Statement on S-8 (Registration No. 333-80297), and incorporated herein by reference.
**10.13	Input/Output Inc. Non-qualified Deferred Compensation Plan, filed on April 1, 2002 as Exhibit 10.14 to the Company s Annual Report on Form 10-K for the year ended December 31, 2001, and incorporated herein by reference.
**10.14	Input/Output, Inc. 2000 Restricted Stock Plan, effective as of March 13, 2000, filed on August 17, 2000 as Exhibit 10.27 to the Company s Annual Report on Form 10-K for the fiscal year ended May 31, 2000, and incorporated herein by reference.
**10.15	Input/Output, Inc. 2000 Long-Term Incentive Plan, filed on November 6, 2000 as Exhibit 4.7 to the Company s Registration Statement on Form S-8 (Registration No. 333-49382), and incorporated by reference herein.
**10.16	Employment Agreement dated effective as of March 31, 2003, by and between the Company and Robert P. Peebler, filed on March 31, 2003, as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.17	First Amendment to Employment Agreement dated September 6, 2006, between Input/Output, Inc. and Robert P. Peebler, filed on September 7, 2006, as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.18	Second Amendment to Employment Agreement dated February 16, 2007, between Input/Output, Inc. and Robert P. Peebler, filed on February 16, 2007 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.19	Third Amendment to Employment Agreement dated as of August 20, 2007 between Input/Output, Inc. and Robert P. Peebler, filed on August 21, 2007 as Exhibit 10.2 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.20	Fourth Amendment to Employment Agreement, dated as of January 26, 2009, between ION Geophysical Corporation and Robert P. Peebler, filed on January 29, 2009 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
**10.21	Employment Agreement dated effective as of June 15, 2004, by and between the Company and David L. Roland, filed on August 9, 2004 as Exhibit 10.5 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, and incorporated herein by reference.
**10.22	Employment Agreement, dated as of December 1, 2008, between ION Geophysical Corporation and James R. Hollis, filed on January 29, 2009 as Exhibit 10.3 to the Company s Current Report on Form 8-K and incorporated herein by reference.

**10.23	GX Technology Corporation Employee Stock Option Plan, filed on August 9, 2004 as Exhibit 10.1 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004, and incorporated herein by reference.
10.24	Concept Systems Holdings Limited Share Acquisition Agreement dated February 23, 2004, filed on March 5, 2004 as Exhibit 2.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.

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10.25	Registration Rights Agreement by and between ION Geophysical Corporation and 1236929 Alberta Ltd. dated September 18, 2008, filed on November 7, 2008 as Exhibit 10.1 to the Company s Quarterly Report on Form 10-Q and incorporated herein by reference.
**10.26	Form of Employment Inducement Stock Option Agreement for the Input/Output, Inc. Concept Systems Employment Inducement Stock Option Program, filed on July 27, 2004 as Exhibit 4.1 to the Company s Registration Statement on Form S-8 (Reg. No. 333-117716), and incorporated herein by reference.
**10.27	Form of Employee Stock Option Award Agreement for ARAM Systems Employee Inducement Stock Option Program, filed on November 14, 2008 as Exhibit 4.4 to the Company s Registration Statement on Form S-8 (Registration No. 333-155378) and incorporated herein by reference.
10.28	Agreement dated as of February 15, 2005, between Input/Output, Inc. and Fletcher International, Ltd., filed on February 17, 2005 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.29	First Amendment to Agreement, dated as of May 6, 2005, between the Company and Fletcher International, Ltd., filed on May 10, 2005 as Exhibit 10.2 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.30	Input/Output, Inc. 2003 Stock Option Plan, dated March 27, 2003, filed as Appendix B of the Company s definitive proxy statement filed with the SEC on April 30, 2003, and incorporated herein by reference.
10.31	Amended and Restated Credit Agreement dated as of July 3, 2008, by and among ION Geophysical Corporation, ION International S.À R.L., HSBC Bank USA, N.A., as administrative agent, joint lead arranger and joint bookrunner, ABN AMRO Incorporated, as joint lead arranger and joint bookrunner, and CitiBank, N.A., as syndication agent, filed on July 8, 2008 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.32	First Amendment to Amended and Restated Credit Agreement and Domestic Security Agreement, dated as of September 17, 2008, by and among ION Geophysical Corporation, ION International S.À R.L., HSBC Bank USA, N.A., as administrative agent, joint lead arranger and joint bookrunner, ABN AMRO Incorporated, as joint lead arranger and joint bookrunner, and CitiBank, N.A., as syndication agent, filed on September 23, 2008 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.33	Third Amendment to Amended and Restated Credit Agreement, dated as of December 29, 2008, by and among ION Geophysical Corporation, ION International S.À R.L., the Guarantors and Lenders party thereto and HSBC Bank USA, N.A., as administrative agent, filed on January 5, 2009 as Exhibit 10.3 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.34	Fourth Amendment to Amended and Restated Credit Agreement and Foreign Security Agreement, Limited Waiver and Release dated as of December 30, 2008, by and among ION Geophysical Corporation, ION International S.À R.L., the Guarantors and Lenders party thereto and HSBC Bank USA, N.A., as administrative agent, filed on January 5, 2009 as Exhibit 10.4 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.35	Fifth Amendment to Amended and Restated Credit Agreement dated effective as of June 1, 2009 by and among ION Geophysical Corporation, ION International S.à r.l., certain other foreign and domestic subsidiaries of the ION Geophysical Corporation, HSBC Bank USA, N.A., as administrative agent, joint lead arranger and joint bookrunner, ABN AMRO Incorporated, as joint lead arranger and joint bookrunner, Citibank, N.A., as syndication agent, and the lenders party thereto, filed on August 6, 2009 as Exhibit 10.1 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
10.36	Sixth Amendment and Waiver to Amended and Restated Credit Agreement dated effective as of October 23, 2009 by and among ION Geophysical Corporation, ION International S.À R.L., the

	Guarantors and Lenders party thereto and HSBC Bank USA, N.A., as administrative agent filed on March 1, 2010 as Exhibit 10.36 to the Company s Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.
**10.37	Form of Employment Inducement Stock Option Agreement for the Input/Output, Inc. GX Technology Corporation Employment Inducement Stock Option Program, filed on April 4, 2005 as Exhibit 4.1 to the Company s Registration Statement on Form S-8 (Reg. No. 333-123831), and incorporated herein by reference.

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**10.38	First Amendment to Consulting Services Agreement dated as of January 5, 2007, by and between GX Technology Corporation and Michael K. Lambert, filed on January 8, 2007 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.39	Letter agreement dated October 19, 2006, by and between the Company and Michael K. Lambert, filed on October 24, 2006 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
**10.40	Severance Agreement dated as of December 1, 2008, between ION Geophysical Corporation and Charles J. Ledet, filed on December 5, 2008 as Exhibit 10.1 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.41	Consulting Agreement dated as of December 1, 2008, between ION Geophysical Corporation and Charles J. Ledet, filed on December 5, 2008 as Exhibit 10.2 to the Company s Current Report on Form 8-K and incorporated herein by reference.
10.42	Rights Agreement, dated as of December 30, 2008, between ION Geophysical Corporation and Computershare Trust Company, N.A., as Rights Agent, filed as Exhibit 4.1 to the Company s Form 8-A (Registration No. 001-12691) and incorporated herein by reference.
**10.43	ION Stock Appreciation Rights Plan dated November 17, 2008, filed as Exhibit 10.47 to the Company s Annual Report on Form 10-K for the year ended December 31, 2008, and incorporated herein by reference.
10.44	Canadian Master Loan and Security Agreement dated as of June 29, 2009 by and among ICON ION, LLC, as lender, ION Geophysical Corporation and ARAM Rentals Corporation, a Nova Scotia corporation, filed on August 6, 2009 as Exhibit 10.3 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
10.45	Master Loan and Security Agreement (U.S.) dated as of June 29, 2009 by and among ICON ION, LLC, as lender, ION Geophysical Corporation and ARAM Seismic Rentals, Inc., a Texas corporation, filed on August 6, 2009 as Exhibit 10.4 to the Company s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
10.46	Term Sheet dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation filed on March 1, 2010 as Exhibit 10.52 to the Company s Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.
10.47	Warrant Issuance Agreement dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation filed on March 1, 2010 as Exhibit 10.53 to the Company s Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.
10.48	Registration Rights Agreement dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation filed on March 1, 2010 as Exhibit 10.54 to the Company s Annual Report on Form 10-K for the year ended December 31, 2009, and incorporated herein by reference.
10.49	Stock Purchase Agreement dated as of March 19, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
10.50	Investor Rights Agreement dated as of March 25, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010 as Exhibit 10.2 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
10.51	Share Purchase Agreement dated as of March 24, 2010, by and among ION Geophysical Corporation, INOVA Geophysical Equipment Limited and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010 as Exhibit 10.3 to the Company s Current Report on Form 8-K, and incorporated herein by reference.

10.52	Joint Venture Agreement dated as of March 24, 2010, by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation, filed on March 31, 2010 as Exhibit 10.4 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
10.53	Credit Agreement dated as of March 25, 2010, by and among ION Geophysical Corporation, ION International S.À R.L. and China Merchants Bank Co., Ltd., New York Branch, as administrative agent and lender, filed on March 31, 2010 as Exhibit 10.5 to the Company s Current Report on Form 8-K, and incorporated herein by reference.

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**10.54	Fifth Amendment to Employment Agreement dated June 1, 2010, between ION Geophysical Corporation and Robert P. Peebler, filed on June 1, 2010 as Exhibit 10.1 to the Company s Current Report on Form 8-K, and incorporated herein by reference.
*21.1	Subsidiaries of the Company.
*23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
*24.1	The Power of Attorney is set forth on the signature page hereof.
*31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a).
*31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a).
*32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. §1350.
*32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. §1350.

* Filed herewith.

** Management contract or compensatory plan or arrangement.