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2009

ANNUAL REPORT
NOTICE OF 2010 ANNUAL MEETING
PROXY STATEMENT

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2009 MILESTONES

- >> Announced (and in March 2010 closed) the INOVA land equipment JV with BGP
- >> De-leveraged the company and strengthened our balance sheet
- >> Lowered our cash breakeven point through financial & operational restructuring
- >> Released a FireFly upgrade, deployed on behalf of BP, CNPC, and PEMEX
- >> Added geophone capabilities to FireFly, deploying to Argentina for Apache
- >> Released the SM-24XL extended life geophone
- >> Continued commercializing our Orca + DigiFIN streamer steering solution
- >> Executed a full-scope imaging program in ice-infested waters offshore Greenland
- >> Added to our regional seismic data programs in the Arctic, Australasia, and Brazil
- >> Captured market share in data reprocessing via reverse time migration (RTM)



Letter to the Shareholders

Robert P. Peebler
Chief Executive Officer

By almost any standard, 2009 was a challenge. As the year began, ION faced a business environment marked by high levels of uncertainty and low commodity prices. This combination suppressed investment throughout the E&P industry and, as the year played out, we suffered revenue declines in many of our operating segments. ION consolidated revenues decreased by nearly 40% compared to 2008.

Our land equipment business was especially hard hit, with economic factors and the debt load we incurred as a result of the ARAM acquisition both taking a toll. North America was the core geography for ARAM, accounting for the majority of its more than \$100 million in land system revenues in the twelve months preceding our acquisition of the company. Unfortunately, the North American seismic business took a beating in the early days of the recession as exceptionally low spot prices for natural gas limited the demand for new acquisition programs and tight credit made it difficult for ARAM's contractor customers to finance new capital expenditures.

Russia and the states of the Former Soviet Union also were hit hard as questions about the future regulatory, political, and taxation climate added layers of uncertainty in an already volatile geo-market that had been a key driver of growth for ION's land equipment business. ION management spent a great deal of time in 2009 addressing the combined impact these dynamics had on not only our land business, but on the company as a whole. We responded by dramatically reducing our headcount and operating costs and streamlining product development. Our most notable strategic move, however, came in our decision to forge a joint venture with the Chinese contractor BGP involving our respective land businesses, which I describe later in this letter.

On the marine equipment side, the downturn had an effect throughout the sector. Marine contractors began decommissioning and stacking older vessels and curtailing the pace of fleet expansions in an attempt to balance the supply of global streamer vessels against lower levels of demand for new seismic acquisition programs. In many

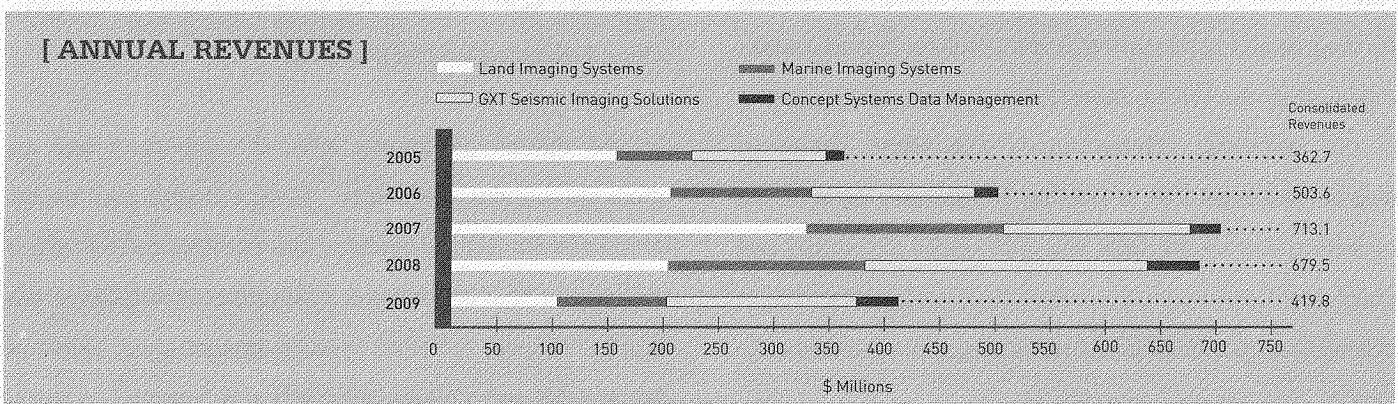
cases, vessel operators reduced their capital budgets and spending levels on new seismic technology. These factors negatively affected ION's revenues from marine equipment, which fell by 44% compared to 2008. On the bright side, ION's marine group still had a profitable year as demand for our advanced streamer control technologies – including Orca® and DigiFIN® – continued to grow, driven by the desire of E&P companies to execute ever larger and more complex marine surveys with streamer steering capability.

In the ocean-bottom cable (OBC) segment, our partner for VectorSeis® Ocean (VSO) – Reservoir Exploration Technology (RXT) – faced a similar fall off in demand for new seabed acquisition during the year, driven by substantial declines in OBC activity in the North Sea and Gulf of Mexico. This led to a reduction in the pace at which RXT planned to deploy new ocean-bottom crews, a decrease in their capital expenditures on new VSO systems, and a reduction in the level of revenue-based royalties ION collected from RXT. Fortunately, RXT is already beginning to see a rebound in demand for ocean-bottom acquisition. New tender activity is increasing in the North Sea as well as offshore West Africa and Brazil, two exploration areas that continue to attract strong interest and investment from E&P operators.

In our data library business, we saw continued strong interest among E&P operators both for existing BasinSPAN™ data programs and for our new ventures projects, especially for those in the Arctic and offshore Brazil. Unfortunately, there was less demand for data library licensing among the small and mid-sized E&P firms than we had experienced in prior years. We also didn't see end-of-year spending among the larger E&P companies that typically occurs as their technical teams attempt to 'zero out their budgets' before the next fiscal year.

The combined effects of these factors drove ION's revenues down by 38% compared to 2008, with 2009 revenues coming in at \$420 million versus \$680 million in the year-earlier period. The loss of \$260 million in revenues clearly presented a challenge to our company. We took the necessary actions to cancel or defer discretionary expenditures and to rebalance our headcount with the new economic realities in our business, a process we began in 2008. Nonetheless, we ended 2009 with a net loss of \$114 million or \$1.03 per share. These are not the financial results that any of us aspired to deliver.

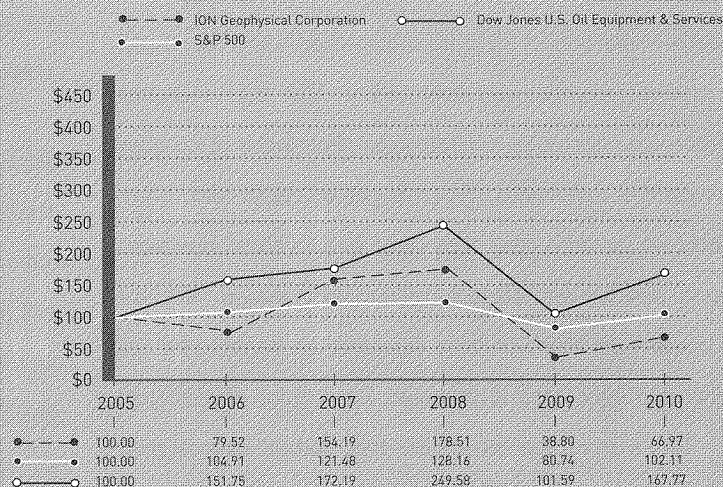
If I were to point to silver linings in this otherwise dark cloud, I could highlight several. One is that our sales margins remained stable across our businesses, something



[SHAREHOLDER RETURNS]

This graph compares our cumulative total stockholder return on our common stock for the five years ending December 31, 2009, assuming reinvestment of dividends, with (i) the S&P 500 Index and (ii) the Dow Jones U.S. Oil Equipment and Services Index, an index of companies that we believe are comparable in terms of industry and their lines of business.

The graph assumes that \$100 was invested in our common stock and the above indices on January 1, 2005. We have not paid any dividends on our common stock during the applicable period. Historic stock price performance is not necessarily indicative of future stock price performance.



that actually distinguished us from other oil field services and equipment companies that suffered significant margin degradation in the downturn. A second is that we continued to generate a positive adjusted EBITDA of \$72.2 million during the year. I believe our stable margins and positive adjusted EBITDA in a turbulent year validate our long-standing strategic intent to provide a comprehensive suite of seismic instruments, software, and processing services to both seismic contractors and E&P operators. This strategy, dating to 2003 and providing the rationale for the acquisitions of GX Technology and Concept Systems in 2004, has provided us with a semi-diversified portfolio in which software and services revenues were able to cushion the impacts of the significant downturn we faced in our legacy seismic equipment businesses. A third bright spot is that we have now taken out nearly \$50 million in operating expenses since the downturn began in 2008, which provides us with a streamlined foundation upon which to profitably grow in the years ahead.

Lastly, I could point out that we have been very successful in defending the intellectual property that underpins many of our most innovative technologies. We were awarded a judgment in the amount of approximately \$33 million against battery maker Greatbatch, Inc. in October 2009 for misappropriating trade secrets associated with the power systems used in our streamer systems and we received a \$25.2 million jury award in a patent infringement lawsuit against Sercel involving VectorSeis®. These jury awards, and an ongoing lawsuit against Schlumberger's WesternGeco subsidiary for patent infringement in streamer steering and control systems, symbolize our commitment to protecting the investment in innovative technologies that have been made by ION and its shareholders over the years.

As we look ahead to 2010 and beyond, I believe there are many reasons to be optimistic about ION and its future. These include an improving investment climate in the seismic sector, our relationship with BGP, and our alignment with some of the fastest growing segments in E&P.

AN IMPROVING INVESTMENT CLIMATE

The global recession of 2008-09 reduced demand for nearly every product, service, and commodity. The E&P industry and seismic sector were not immune. For those of us who have worked or invested in the oil & gas business over many decades, we never forget that ours is a cyclical business subject to sudden and often unpredictable swings. While I won't begin to predict when and how fast the demand for our products and services will increase, I am quite certain that it will. That's driven by the simple fact that oil, natural gas, and the products derived therefrom are critical to the world's economy and that, in the short term, there are no economically viable substitutes for providing heat, light, mobility, and petroleum products to the citizens of the world.

China and India continue to have large and growing populations desirous of a 'middle-class lifestyle'. Their citizens want to buy and drive automobiles, live in larger homes, possess modern appliances, and work in higher-paying, export-oriented jobs that, by their nature, tend to be fairly energy intensive. As a country, China has managed through the economic downturn quite well. It has sustained and grown its export base to capture the title of "World's Largest Exporter" and seems destined to return to its recent GDP growth rates of 8-10% per year.

India, Brazil, and a host of other high-growth, export-oriented countries follow close behind. To sustain that growth, they will need to consume ever-increasing quantities of energy. Despite a global political movement advocating low-carbon, 'clean energy' sources, I am of the view that fossil fuels will continue to supply the vast majority of the world's energy requirements in the years ahead. This isn't to say that solar, wind, and biofuels couldn't and shouldn't play a part in our energy mix –

they can and they will. But the fact remains that oil and especially natural gas will be critical energy sources for many decades to come.

As we and others have suggested, finding and producing these new sources of oil and natural gas won't be easy. The new sources will likely be located deeper in the geologic column, like the massive new deposits that have been found in the Gulf of Mexico on both the shallow-water shelf and in the Tertiary play under thousands of feet of water and tens of thousands of feet of sediment. They'll likely be located far offshore and obscured by salt, like the discoveries in the Campos and Santos basins offshore Brazil. They'll likely be found in the Arctic, where capturing a high-quality seismic image of the subsurface is among the many daunting challenges facing an E&P operator. And they'll likely be found trapped in unconventional reservoirs, including the gas shales of North America, China, and Central Europe where advanced seismic, drilling, and hydraulic fracturing technologies will all be required to produce hydrocarbons from a potentially huge resource base.

Given early signs of a rebounding global economy and an improving commodity pricing environment, E&P operators are already beginning to expand their capital budgets. A survey of E&P companies by Barclays PLC indicates that capital spending will increase by 10-15% worldwide in 2010. This bodes well for our business, as it should lead to an increase in exploration expenditures that should, in turn, improve demand for new seismic acquisition programs, seismic data processing (and re-processing) services, and seismic data library licensing.

We also suspect that it will continue to increase the demand for seismic products and services outside of

exploration. Increasingly, seismic is being applied during the appraisal, development, and production phases of a reservoir's multi-decade lifecycle. In particular, seismic techniques are finding application to better characterize the structural and rock property attributes of reservoirs in order to optimize well placement, as well as to monitor fluid movements within the reservoir itself.

All of these activities require the latest seismic technologies. Fortunately, ION has sustained its commitment to innovation and product development during the downturn. We continue to invest nearly \$45 million each year in R&D. Although this number is down slightly from prior years, our R&D investment rate at more than 10% of revenues signifies our commitment to maintaining our reputation as a technology leader in the seismic sector and offering our customers the products and services they will need to find, develop, and efficiently produce the global hydrocarbon resource base.

OUR RELATIONSHIP WITH BGP

In October 2009, we announced our intention to form a joint venture in our land equipment business with the world's largest land seismic contractor, BGP. We received all necessary government approvals in both China and the United States and signed the definitive agreements to close this transaction in March 2010. Called INOVA Geophysical Equipment Limited, this joint venture company is owned 49% by ION and 51% by BGP. The acronym BGP stands for Bureau of Geophysical Prospecting, which is a wholly owned subsidiary of China National Petroleum Corporation (CNPC).

As many of you know, CNPC is one of the most active global E&P operators. CNPC, in partnership with BP, just



took over operatorship of one of the world's largest oil fields, and Iraq's largest, called Rumaila. CNPC have also recently signed mega-asset development deals in Western Canada, Latin America, Africa, and Central Asia where their future commitments for exploration and reservoir development are measured in the tens of billions of dollars.

BGP is equally active and has experienced tremendous growth in recent years, in part by being drawn into opportunities by CNPC but in large measure because of the reputation it has established as a seismic contractor capable of acquiring data in almost any environment in a highly efficient and safety-conscious manner. BGP now operates 113 land seismic crews around the world, split almost equally between domestic China and international deployments. By comparison, the major international land contractors operate approximately 20 crews each. BGP operates in every conceivable acquisition environment, from the deserts of North Africa to the jungles of Latin America to the cold weather environments of Mongolia. This is important, because BGP's diversity of operating experiences will carry over to INOVA, driving product feature-function innovations that should appeal to other land seismic contractors wherever they operate in the world.



I expect other benefits to accrue to INOVA. For instance, because INOVA will have improved transparency into demand from BGP, who will likely also be INOVA's largest customer, INOVA should be better able to optimize its supply chain, manufacturing facilities, and distribution network. This should lower INOVA's cost basis, help to capture economies of scope and scale, and allow INOVA to 'forward stage' spare parts and field support personnel so that response times for field service and repairs can be improved.

I believe the lower cost position and improved response times will make INOVA's offerings much more appealing to all land contractors. This is a very important point to emphasize – INOVA will be selling not only to BGP crews, but to all land seismic contractors wherever they operate, all on market terms. BGP management appreciates that the proven model of 'open selling' used by our largest seismic equipment competitor works very well. As many of you know, the entity of which I am speaking has not only an in-house equipment arm, but also access to an in-house land acquisition services group that can test, shake down, and purchase the technologies that are developed. At the same time, however, the equipment arm also sells to other land contractors on a global basis.

There are several benefits to this approach, including the ability to better test and refine new technologies in-house before they are broadly commercialized to the entire market; the ability to obtain feedback from a diverse customer group to better improve the features and functions of the technologies that are sold; the ability to spread out the costs of R&D to a global customer base; and, of course, the ability to capture additional revenues and cash flows from not only the initial sale of these technologies but also from recurring cash streams by selling spare parts or providing field support services.

From the perspective of ION, having privileged access to a close-in acquisition services company is something that we lacked historically. We have some top-notch engineers in what used to be ION's Land Imaging Systems group. But without direct access to a contractor, our land technologists often found themselves missing a level of insight into what really is happening in the field and what the pain points and opportunities are in land seismic acquisition operations. This lack of access led us to struggle in the early stages of technology commercialization for products like VectorSeis or FireFly®. Because INOVA will have access to BGP's land seismic crews, operating in every conceivable acquisition environment, they can solve the problem by having timely access to field operating perspectives during product design, 'beta testing', and market commercialization.

By marrying our individual capabilities – in technology development at ION and in field operations at BGP – we are able to launch a venture that combines a tremendous portfolio of intellectual property, human capital, and practical operating insights that we think will set it apart in the market and, in short order, allow it to become the technology provider of choice to land seismic contractors

around the world, a group that in aggregate purchases roughly \$1 billion in acquisition technology annually.

BGP paid us a little more than \$108 million for their 51% stake when the transaction closed. On top of this, both we and BGP felt it would be in our best interests to not only align ourselves at the level of the joint venture itself, but also at the broader corporate level of ION Geophysical. As a result, we sold shares of our common stock to BGP for over \$66 million, resulting in BGP now owning 16.6% of ION's outstanding shares. This alignment of interests is important, as it provides another reason for BGP to purchase not only from INOVA, but also from our other business lines at ION. So, for instance, we think it will make them look a little harder at our Intelligent Acquisition [IA][™] line of streamer technologies when they outfit new marine acquisition vessels or more strongly consider buying licenses for our BasinSPAN regional seismic data programs in areas where CNPC might be actively exploring.

When this \$66 million is combined with the \$108 million BGP paid ION for their share of INOVA, roughly \$175 million in cash was paid to ION by BGP when the deal closed in late March 2010. We used these proceeds to pay off both the \$35 million seller's note from the ARAM acquisition and the \$118 million owed on our previous revolving credit facility. We used the remaining amount – roughly \$20 million in cash – to further strengthen our balance sheet.

On the debt side, BGP arranged for China Merchants Bank Co. Ltd. to provide us with both a new revolver and to replace our 'Term A' long-term debt. This new revolver has a \$100 million credit line, better terms and conditions than our old revolver and, most importantly, a zero initial balance. When combined with the \$20 million in net

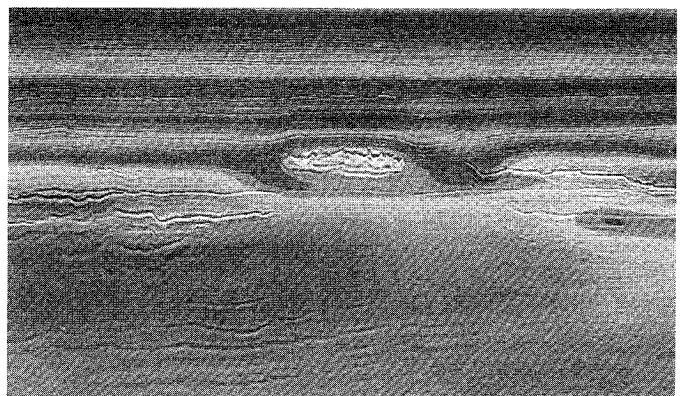
cash proceeds from the INOVA transaction, ION now has nearly \$120 million of liquidity to tap into when and if required. Through cash infusions, debt retirements, and the replacement of our revolver and long-term debt with improved instruments, we have de-leveraged the company, significantly strengthened our balance sheet, and put in place the capital structure we'll need to fund our growth as the seismic sector emerges from the current downcycle.

OUR ALIGNMENT WITH HIGH-GROWTH SEGMENTS

I believe our improved financial strength will benefit us in the years ahead by providing the investment foundation needed to further strengthen our position in several high-growth segments within the E&P business, including the sub-salt, the Arctic, and enhanced reservoir characterization.

Sub-Salt Exploration

Sub-salt exploration and reservoir development has always been one of the more vexing areas in E&P. For years, geoscientists have known that huge quantities of oil and natural gas lie beneath salt structures, including those along the onshore U.S. Gulf coast and within the Gulf of Mexico, offshore Brazil, offshore portions of West Africa, the Mediterranean coastline, and onshore in parts of Russia and Central Asia. There isn't an exact reserves estimate



out there, but the future resource base lying beneath salt structures is likely in excess of 100 billion barrels of oil equivalent worldwide.

Sub-salt imaging is a challenge because strange things happen to acoustic energy in and around salt. The velocity contrast between salt and the surrounding sediments presents one challenge, while the irregular shape of many salt bodies presents another. In combination, the velocity contrast and irregular shapes of salt tend to distort the propagation paths of the acoustic energy in very complex ways, making it extremely challenging to map potential hydrocarbon-bearing rock layers underneath the salt.

Fortunately, several seismic technologies and techniques have come into the market to address these challenges, with the ION family of companies well positioned either to supply them or enable their deployment. The first deals with the acquisition geometries used by marine vessel operators. If you think of a salt deposit as a coffee table, geoscientists are trying to get as far away from the table as possible in order to have a possibility to 'see' underneath it from as many directions and angles as possible. They do this by carrying longer streamers and deploying a mix of multiple seismic source vessels and streamer recording vessels in complex geometries to increase the aperture of the acoustic listening cone. Keeping all of these vessels in sync, however, poses a challenge and requires advanced command & control software like Orca to orchestrate the multi-vessel acquisition operation.

Moreover, many of these advanced acquisition geometries involve unusual 'sail patterns' and require some measure of streamer steering capability in order to be executed efficiently. In addition, geophysicists want to deploy as

many streamer cables as practical, as close together as possible, to increase the density of the hydrophone recording devices and the resulting quality of the seismic image. Our DigiFIN streamer control system, operating in conjunction with Orca, provides the capabilities needed for steering densely deployed towed streamer cables in these complex geometries.

In addition, our GX Technology (GXT) imaging systems group possesses the capabilities to process the data acquired from these increasingly complex surveys. Sub-salt imaging requires application of the most advanced depth migration techniques, such as reverse time migration (RTM), as well as state-of-the-art velocity model-building approaches used to convert seismic data acquired in the time domain to the more practically applied depth domain. These are areas in which GXT excels. Not surprisingly then, we have seen GXT's revenues and market share continue to increase throughout the downturn. We have also seen several of the largest sub-salt operators – including Cobalt International Energy, Inc., HESS Corporation, and Petroleos Mexicanos (PEMEX) – commit to long-term, multi-project agreements with GXT focusing on sub-salt imaging. These long-term arrangements benefit ION in many ways, including strengthening our commercial relationships with key customers, keeping us on the leading edge of sub-salt imaging technologies and the problems our customers are trying to overcome, and providing some measure of revenue consistency and transparency.

Our capabilities in sub-salt imaging are now finding practical application beyond our traditional stronghold in the Gulf of Mexico. For instance, we've worked on processing what is known as 'pre-salt' data offshore

Brazil as part of our BrasilSPAN™ regional seismic data program, which several major E&P operators are using to optimize their exploration programs in the highly prolific Campos and Santos basins. For those oil & gas companies that desire a comprehensive understanding of petroleum system evolution, we've mapped what are known as the conjugate ties between the west coast of Africa and the eastern coasts of Brazil, Uruguay, and Argentina. In effect, we're using our advanced depth imaging technologies to see underneath salt in these areas and help geoscientists understand how the prolific hydrocarbon regions of the Southern Atlantic evolved over the last 100 million years.

Arctic Exploration

Our work on behalf of E&P operators continues in the Arctic, a region that the United States Geological Survey (USGS) estimates could contain 25% of the world's undiscovered hydrocarbon resources. We have operated in the Arctic for the last several years, primarily through our oversight of the acquisition and processing of our ongoing ArcticSPAN™ regional seismic data program. Until 2009, most of our work focused on the Beaufort and Chukchi regions offshore northern Alaska and Canada where we completed several successful projects that built our reputation as an extremely efficient developer and manager of complex Arctic programs.

In 2009, our ArcticSPAN expanded to the northeast coast of Greenland. This is a highly prospective area that has attracted the attention of many of the world's largest oil & gas companies, but one which also presents many challenges to hydrocarbon exploration and development. One of the greatest of these is the lack of high-quality seismic data. Unlike most offshore regions, the coasts of Greenland lack seismic data coverage. There are many



reasons for this, but the biggest one is the near-continuous presence of ice that wreaks havoc with in-water seismic acquisition equipment. Even if this obstacle can be overcome, processing the data can be extremely tricky as the breaking ice in the wake of the vessels serves as a secondary, noise-inducing source of unwanted acoustic energy. Fortunately, our GXT imaging group has significant experience in processing data acquired in the Arctic environment and can effectively address the challenges that are presented.

As part of our collaborative approach to BasinSPAN program development, we reached out to the oil & gas companies that knew us from our ArcticSPAN program and proposed to them an innovative solution for the seismic imaging challenges of Greenland. We offered to custom design a survey that took into account the imaging objectives and regional geologic challenges, made use of an Arctic-class icebreaker, and employed the latest streamer technologies to steer the streamer cables through the fairway of open water behind the icebreaker. In addition, we committed to develop new systems to deflect ice floes away from the in-water acquisition equipment, steer the streamer cables under any ice floes that remained, and accurately compute the position of in-water acquisition gear at polar latitudes.

We also proposed to have our GXT group process and help to interpret the data and offered to take on the oversight of the entire project's execution from start to finish.

The E&P operators agreed with our proposal and the vessel operator we commissioned for acquisition 'took the first shot' in July 2009. By the time acquisition operations wrapped up in October 2009, we had acquired over 5,200 km of high-quality seismic data, exceeding the expectations of the program's underwriters despite one of the most intense 'ice years' in recent memory. In many areas, our work provided a first-ever regional view of the sub-surface which, as you might imagine, has significant value to our E&P customers.

I am delighted by the success of this program and think it provides an excellent example of our strategy in action. After the acquisitions of GXT and Concept Systems in 2004, we articulated the clear benefits that could accrue from working directly with E&P companies to solve their most pressing sub-surface imaging challenges as a 'solution provider'. We felt we possessed a rich and complete toolkit of technologies and services – including acquisition systems, command & control software, data processing and imaging services, and integrated project management – that would help to unlock insights and resources needed by our E&P company clients. I believe we have now done that in the Arctic and, in so doing, opened up an important platform for future demand-driven growth in the years ahead.

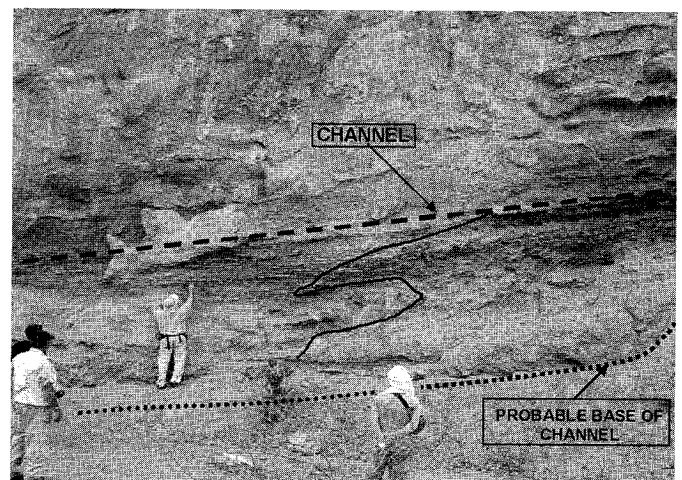
Enhanced Reservoir Characterization

Somewhat buried in the financial turmoil of 2009 were a series of successes related to our ability to better characterize the oil & natural gas reservoirs of our E&P

customers. As with the Arctic [IA] opportunity, these successes shared the theme of a 'full toolkit solution' that included acquisition technology, software, and value-added imaging and project management services.

Unlike the two prior examples, however, in which ION's technologies and services were being applied primarily in the context of understanding broad geographic regions or the macro-level structural view of a potential reservoir, these successes focused on what was happening within the reservoir itself, including the variation in the rock types that make it up, the fracture orientation and intensity patterns within it and, in some cases, the fluid distributions contained within the reservoir layers.

Our ability to help E&P operators better characterize their reservoirs is vitally important both to them and to ION. E&P firms would capture value through the improved success rates of drilling programs or the enhanced productivity of new wells, while ION's relevance to our customers would extend to all phases of a reservoir's life-cycle, allowing us to capture a portion of the investment capital that is dedicated to reservoir development and production optimization long after an asset is discovered.



Full-wave (multicomponent) technologies play a critical role in extending the utility of seismic to the reservoir as the shear-wave data recorded by digital 3-C sensors like VectorSeis provides an additional measurement that, if properly processed and interpreted, enables geophysicists to better discriminate structures, rocks, fractures, and fluids. As a company, ION has offered full-wave sensors and recording systems for several years. While the uptake in the early stages of technology commercialization was slower than we hoped for, we have seen an increase in customer adoption and excitement in the last few years.

Our first 'big win' came in our collaboration with Sinopec in the Sichuan Province of China. This large, Chinese energy multi-national was attempting to execute a development drilling program in a fractured gas reservoir, but their understanding of the drivers of well productivity was limited. Some wells they drilled were highly productive; others, less so. ION and Sinopec geoscientists worked together to devise a full-wave program for the XinChang reservoir which, at the time, was the world's largest. Our GXT Imaging subsidiary processed the data and performed advanced geophysical analysis on the full-wave data to map lithology and fracture variations across the reservoir. Based on this information, the joint project team was able to explain why some of the past wells were better than others and to recommend the ideal targets for new drilling locations. The client soon drilled the most productive well not only in the field, but in the entire province. In addition, Sinopec's success rate on their drilling program improved to 85% compared to the 30-35% success rates they were attaining before the full-wave imaging project. Subsequently, our work with Sinopec in the Sichuan Province has been extended to include other challenging reservoirs being managed by the local asset team.

Our project with unconventional reservoir developer East Resources led this independent E&P producer to develop similar insights about the make-up of their target reservoirs and how to best target their wells in the fracture intensive Niobrara formation in northwest Colorado. Our work with Apache and BP in northeast Texas has helped them to better characterize reservoir targets in and around the prolific Haynesville shale play. Internationally, we are working with CNPC to characterize a series of potential reservoir targets located within the complex sub-surface geology of Inner Mongolia. The data being recorded offshore West Africa using VectorSeis Ocean as part of a multi-year program for a supermajor are reportedly "outstanding" and already leading to new insights and potential reservoir targets across a broad development area. And acquisition has just been completed on the last of three full-wave imaging projects we are undertaking for PEMEX in Mexico, with data processing and reservoir interpretation set to begin shortly.

The common threads throughout all of these success stories certainly include VectorSeis, but another thread involves our direct collaboration with these E&P operators to create excitement and interest in a comprehensive full-wave imaging approach. These E&P firms understand that full-wave seismic is an emerging technology and recognize that an integrated project arrangement with ION that includes data processing, imaging, and select reservoir interpretation services is likely to lead to the best results.

When one considers the global operating footprints of these E&P companies along with the many partners they work with to jointly develop most upstream assets, it is easy to appreciate how our success in projects like those

mentioned can propel the E&P industry ever faster towards a tipping point in which full-wave becomes a standard reservoir characterization tool both onshore and offshore.

PRIORITIES FOR 2010

The mantra inside of ION for 2010 is to restore the company to profitability. We have an operating plan in place to deliver on this objective, with clear goals in place in all of our business units outlining what they need to make happen. We assume some modest recovery in business conditions during the year but, should these fail to materialize at the pace we envision, we are prepared to take additional actions to balance our operating expenses with the revenues and margins our company can generate. Fortunately, the actions we took to de-leverage the company in 2009 have lowered our cash breakeven point substantially, allowing all equity holders to benefit from reduced interest and financing charges and smaller principal and interest payments to our debt holders.

To restore the company to profitability in 2010 and to position ourselves for long-term success, I have agreed upon the following priorities with our Board of Directors:

- Ensure we get the INOVA joint venture with BGP running successfully. We have already worked with BGP to put in place a five-year operating plan for INOVA, including high-level commitments for new equipment from BGP and an aggressive yet realistic roadmap to get INOVA's land equipment business to a place of marketplace prominence and sustained value creation. I will be spending significant time with the INOVA Board and leadership team to ensure we get the venture launched successfully, deliver upon the financial commitments INOVA has made to its parent
- owners, and establish the working relationships among ION, CNPC, and BGP that allow us to capture synergies beyond the joint venture in the years ahead.
- Sustain the momentum we've made with FireFly. In 2009, we celebrated numerous engineering successes with FireFly, which have translated to field deployment and customer successes. We made great progress on FireFly's power system, enabling it to stay deployed in the field for longer periods without pick-up and re-charging. We added analog recording capability so that FireFly can be used with conventional geophones if desired. We made great progress on the system's reliability and field performance, with trace recovery (a key metric used by both E&P firms and contractors) now approaching 98% compared to the ~70% levels of the Version 1.0 system. In 2010, a key focus will be cost reduction. INOVA management, working with their colleagues at BGP, will take the lead in this area. My focus will be on the business development side as we continue to unlock opportunities for integrated, full-wave imaging projects driven by E&P companies, like those I described previously.
- Build our ISS Business 'Beyond the BasinSPAN'. The BasinSPAN regional seismic programs have been a key driver of ION's growth in recent years. There is still room for new BasinSPAN programs and extensions of others that we already have in place. But we'll need to expand our Integrated Seismic Solutions (ISS) offering to other promising areas. We've begun to do that already, as evidenced by our Arctic [IA] program offshore Greenland and by the Durham Ranch project we completed in Colorado. The Durham Ranch project was undertaken over a fractured shale reservoir, and

I believe there is a real business opportunity for ION associated with the fractured shale plays in the United States, Central Europe, and China. The combination of highly portable FireFly acquisition systems, full-wave measurements, and GXT Imaging services can really help us assist E&P operators to assess the results of their hydraulic fracturing and drilling programs and determine how to optimize both.

- Restore momentum in our Marine Imaging Systems business. The recession of 2008-09 has taken a toll on our marine businesses. There are fewer streamer vessels coming into the market, which translates to less demand for new seismic equipment. RXT has faced diminished demand for seabed acquisition, which has hurt our sales of VSO and the magnitude of the royalties RXT pays to ION. And the 'Big Three' marine contractors continue to move toward in-house technology development, limiting the opportunities we have as an independent systems provider. There are bright spots in the marine market, however, including the excitement surrounding streamer steering, the success we've had in carving out a niche in Arctic streamer operations, renewed interest in ocean-bottom surveys, and our strong partnerships with companies like RXT, Fugro, Polarcus, and BGP. As our plans to capitalize on these opportunity areas come to life during the year, I will keep you updated on the progress that we're making.

One theme that will govern our communications with our shareholders in 2010 involves improving the transparency you have into our industry, our company, and our business segments. We want for you to better understand our business drivers, including the technologies and competitive dynamics that determine the forecasts we make and the outcomes we obtain. My leadership team is committed to delivering this transparency as 2010 unfolds so that, by year's end, you should have a better sense of our business, our prospects, and our success in meeting the goals and objectives we have laid out for the company.

Thank you for your ongoing confidence in ION.

A handwritten signature in black ink, appearing to read "Bob Peebler". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Bob Peebler

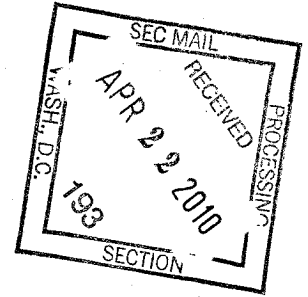
[FINANCIAL HIGHLIGHTS]

	years ended December 31		
	2009	2008	2007
	(in thousands, except per share data)		
STATEMENT OF OPERATIONS DATA			
Product revenues	\$ 237,664	\$ 417,511	\$ 537,691
Service revenues	182,117	262,012	175,420
Net revenues	419,781	679,523	713,111
Cost of products	165,923	289,795	386,849
Cost of services	121,720	181,980	119,679
Gross profit	132,138	207,748	206,583
Operating expenses (income)			
Research, development and engineering	44,855	49,541	49,965
Marketing and sales	34,945	47,854	43,877
General and administrative	72,510	70,893	48,847
Impairment of goodwill and intangible assets	38,044	252,283	—
Total operating expenses	190,354	420,571	142,689
Income (loss) from operations	(58,216)	(212,823)	63,894
Interest expense, including amortization of non-cash debit discount	(35,671)	[12,723]	[6,283]
Interest income	1,721	1,439	1,848
Fair value adjustment of the warrant	(29,401)	—	—
Impairment of cost method investment	[4,454]	—	—
Other income (expense)	(4,023)	4,200	(3,992)
Income (loss) before income taxes	(130,044)	(219,907)	55,467
Income tax expense (benefit)	(19,985)	1,131	12,823
Net income (loss)	(110,059)	(221,038)	42,644
Preferred stock dividends and accretion	3,500	3,889	2,388
Preferred stock beneficial conversion charge	—	68,786	—
Net income (loss) applicable to common shares	\$ (113,559)	\$ (293,713)	\$ 40,256
Net income (loss) per basic share	\$ (1.03)	\$ (3.06)	\$ 0.49
Net income (loss) per diluted share	\$ (1.03)	\$ (3.06)	\$ 0.45
Weighted average number of common shares outstanding	110,516	95,887	81,941
Weighted average number of diluted shares outstanding	110,516	95,887	97,321
Balance Sheet Data (end of year)			
Working capital	\$ (59,018)	\$ 267,155	\$ 220,522
Total assets	748,186	861,431	709,149
Long-term debt, net of current maturities	6,249	253,510	9,842
Stockholders' equity	282,468	325,070	476,240
Other Data			
Capital expenditures	\$ 2,966	\$ 17,539	\$ 11,375
Investment in multi-client library	89,635	110,362	64,279
Depreciation and amortization (other than multi-client library)	47,911	33,052	26,767
Amortization of multi-client library	48,449	80,532	37,662

The selected consolidated financial data set forth above with respect to our consolidated statements of operations for the years ended December 31, 2009, 2008 and 2007, and with respect to our consolidated balance sheets at December 31, 2009, 2008 and 2007 have been derived from our audited consolidated financial statements. Our results of operations and financial condition have been affected by the acquisition of ARAM in September 2008 and impairments of assets during the periods presented, which may affect the comparability of the financial information. Our results of operations for the year ended December 31, 2009 and 2008 were negatively impacted from the impairment of our goodwill and intangibles assets totaling \$38.0 million and \$252.3 million, respectively, the fair value adjustment of the warrant, including amortization of a non-cash debt discount, totaling \$36.1 million, for the year-ended December 31, 2009 and from the beneficial conversion charge of \$68.8 million associated with our outstanding convertible preferred stock for the year ended December 31, 2008. This information should not be considered as being necessarily 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 in our Annual Report on Form 10-K for the year ended December 31, 2009.



ION GEOPHYSICAL CORPORATION
2105 CityWest Boulevard, Suite 400
Houston, Texas 77042-2839
(281) 933-3339



NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held May 26, 2010

To ION's Stockholders:

The 2010 Annual Meeting of Stockholders of ION Geophysical Corporation will be held at 2105 CityWest Boulevard, Houston, Texas, on Wednesday, May 26, 2010, at 10:30 a.m., local time, for the following purposes:

- (1) Election of three directors, each for a three-year term expiring in 2013;
- (2) Approval of certain amendments to ION's 2004 Long-Term Incentive Plan to increase the total number of shares of ION's common stock available for issuance under the plan from 7,700,000 to 10,200,000 shares;
- (3) Approval of the ION Employee Stock Purchase Plan to replace ION's employee stock purchase plan that expired on December 31, 2008;
- (4) Ratification of the appointment of Ernst & Young LLP as ION's independent registered public accounting firm (independent auditors) for 2010; and
- (5) Transaction of any other business that may properly come before the Annual Meeting or any adjournment or postponement of the meeting.

ION's Board of Directors has set April 1, 2010, as the record date for the meeting. This means that owners of ION common stock at the close of business on that date are entitled to receive this notice of meeting and vote at the meeting and any adjournments or postponements of the meeting.

ION will make available a list of stockholders of record as of the record date for inspection during normal business hours from 9:00 a.m. to 5:00 p.m., local time, from May 15, 2010 through May 26, 2010, at ION's principal place of business, located at 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839. This list will also be available at the meeting. For your reference, directions to the meeting location are included in this proxy statement.

Your vote is very important. Whether you own one share or many, your prompt cooperation in voting your proxy is greatly appreciated. Whether or not you plan to attend the meeting, please sign, date and return your enclosed proxy card as soon as possible so that your shares can be voted at the meeting.

By Authorization of the Board of Directors,

David L. Roland
*Senior Vice President, General Counsel
and Corporate Secretary*

April 21, 2010
Houston, Texas



**Important Notice Regarding the Availability of Proxy Materials
For the Annual Stockholders' Meeting to be held on May 26, 2010**

**The proxy statement, proxy card and our 2009 annual report to stockholders
are available at www.iongeo.com under "Investor Relations — Investor Materials —
Stockholders' Meeting."**

The Annual Meeting of Stockholders of ION Geophysical Corporation will be held on May 26, 2010, at 2105 CityWest Boulevard, Houston, Texas, beginning at 10:30 a.m., local time.

The matters intended to be acted upon are:

1. To elect three directors to our Board of Directors, each to serve for a three-year term;
2. To approve certain amendments to ION's 2004 Long-Term Incentive Plan to increase the total number of shares of ION's common stock available for issuance under the plan from 7,700,000 to 10,200,000 shares;
3. To approve the ION Employee Stock Purchase Plan to replace ION's employee stock purchase plan that expired on December 31, 2008;
4. To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm (independent auditors) for 2010; and
5. To consider any other business that may properly come before the annual meeting, or any postponement or adjournment of the meeting.

The Board of Directors recommends voting in favor of the nominees listed in the proxy statement, the approval of the amendments to the 2004 Long-Term Incentive Plan, the approval of the Employee Stock Purchase Plan and the ratification of the appointment of Ernst & Young LLP.

The following proxy materials are being made available at the website location specified above:

1. The proxy statement for the 2010 Annual Meeting of Stockholders and the 2009 annual report to stockholders; and
2. The form of proxy card being distributed to stockholders in connection with the 2010 Annual Meeting of Stockholders.

If your bank or broker is making available to you voting by telephone or the Internet, it will enclose instructions with the proxy statement to allow you to vote your shares by one of those methods, along with control/identification numbers to authenticate your identity and confirm that your voting instructions have been properly recorded.

Directions to the annual meeting are also provided in the proxy statement under "*About the Meeting—Where will the Annual Meeting be held?*".

If the form of proxy is completed, signed and returned, the shares represented by the proxy will be voted at the meeting. Delivery of the proxy does not affect your right to attend the meeting. However, if your shares are held in the name of a bank, broker or other holder of record, you must obtain a proxy from the holder of record, executed in your favor, to be able to vote at the meeting. Otherwise, your shares will be voted in the manner in which you instructed the record holder of your shares.



ION GEOPHYSICAL CORPORATION
2105 CityWest Boulevard, Suite 400
Houston, Texas 77042-2839
(281) 933-3339

April 21, 2010

PROXY STATEMENT
FOR ANNUAL MEETING OF STOCKHOLDERS
To Be Held May 26, 2010

Our Board of Directors is furnishing you this proxy statement to solicit proxies on its behalf to be voted at the 2010 Annual Meeting of Stockholders of ION Geophysical Corporation (“ION”). The meeting will be held at 2105 CityWest Boulevard, Houston, Texas, on May 26, 2010, at 10:30 a.m., local time. The proxies also may be voted at any adjournments or postponements of the meeting.

The mailing address of our principal executive offices is 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839. We are mailing the proxy materials to our stockholders beginning on or about April 21, 2010.

All properly completed and returned proxies for the annual meeting will be voted at the meeting in accordance with the directions given in the proxy, unless the proxy is revoked before the meeting.

Only owners of record of our shares of common stock on April 1, 2010, are entitled to vote at the meeting, or at adjournments or postponements of the meeting. Each owner of common stock on the record date is entitled to one vote for each share of common stock held. On April 1, 2010, there were 143,219,601 shares of common stock issued and outstanding.

When used in this proxy statement, “ION Geophysical,” “ION,” “Company,” “we,” “our,” “ours” and “us” refer to ION Geophysical Corporation and its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

ABOUT THE MEETING

What is a proxy?

A proxy is your legal designation of another person to vote the stock you own on your behalf. That other person is referred to as a “proxy.” Our Board of Directors has designated Robert P. Peebler and James M. Lapeyre, Jr. as proxies for the 2010 Annual Meeting of Stockholders. By completing and returning the enclosed proxy card, you are giving Mr. Peebler and Mr. Lapeyre the authority to vote your shares in the manner you indicate on your proxy card.

Who is soliciting my proxy?

Our Board of Directors is soliciting proxies on its behalf to be voted at the 2010 Annual Meeting. All costs of soliciting the proxies will be paid by ION. Copies of solicitation materials will be furnished to banks, brokers, nominees and other fiduciaries and custodians to forward to beneficial owners of ION’s common stock held by such persons. ION will reimburse such persons for their reasonable out-of-pocket expenses in forwarding solicitation materials. In addition to solicitations by mail, some of ION’s directors, officers and other employees, without extra compensation, might supplement this solicitation by telephone, personal interview or other communication. ION has also retained Georgeson Inc. to assist with the solicitation of proxies from banks, brokers, nominees and other holders, for a fixed fee of \$9,000 plus reasonable out-of-pocket expenses, which fees and expenses will be paid by ION. We may also ask our proxy solicitor to solicit proxies on our behalf by telephone for a fixed fee of \$5 per phone call and \$5 per telephone vote, plus reasonable expenses.

What is a proxy statement?

A proxy statement is a document that the regulations of the Securities and Exchange Commission require us to give you when we ask you to sign a proxy card designating individuals as proxies to vote on your behalf.

What is the difference between a “stockholder of record” and a stockholder who holds stock in “street name”?

If your shares are registered directly in your name, you are a stockholder of record. If your shares are registered in the name of your broker or bank, you are a street name holder.

What different methods can I use to vote?

Most stockholders have a choice of voting over the Internet, by telephone, or by using a traditional proxy card. Please check your proxy card or the information forwarded by your bank, broker or other holder of record to see which options are available to you.

(a) *In Writing:* All stockholders can vote by written proxy card.

(b) *By Telephone and Internet:* Street name holders may vote by telephone or the Internet if their bank or broker makes those methods available, in which case the bank or broker will enclose the instructions with the proxy statement. The telephone and Internet voting procedures, including the use of control numbers, are designed to authenticate stockholders’ identities, to allow stockholders to vote their shares, and to confirm that their instructions have been properly recorded.

(c) *In Person:* All stockholders may vote in person at the meeting. If you are a street name holder who wishes to vote in person, you will need to ask your broker or bank for a legal proxy. You will need to bring the legal proxy with you to the meeting.

Where will the Annual Meeting be held?

ION's 2010 Annual Meeting of Stockholders will be held on the 9th Floor of 2105 CityWest Boulevard in Houston, Texas.

Directions: The site for the meeting is located on CityWest Boulevard off of Beltway 8, near the intersection of Beltway 8 and Briar Forest Drive. Traveling south on the Beltway 8 feeder road after Briar Forest Drive, turn right on Del Monte Drive. Enter Garage Entrance 3 on your immediate left. Advise the guard that you are attending the ION Annual Meeting. You may be required to show your driver's license or other photo identification. The guard will then direct you where to park in the visitors section of the parking garage. The guard can also direct you to 2105 CityWest Boulevard, which is directly south of the garage. Once in the building, check in with the security desk and then take the elevators to the 9th floor.

Does my vote matter?

Yes! Corporations are required to obtain stockholder approval for the election of directors and other important matters. Stockholder participation is not a mere formality. Stockholder voting is essential for ION to continue to function. It is also important that you vote to assure that a quorum is obtained so that corporate business can be transacted at the meeting.

What is the effect of not voting?

It depends on how ownership of your shares is registered. If you are a stockholder of record, your unvoted shares will not be represented at the meeting and will not count toward the quorum requirement. Assuming a quorum is obtained, your unvoted shares will not be treated as a vote for or against a proposal.

If you own your shares in street name, your broker or bank may represent your shares at the meeting for purposes of obtaining a quorum. As described in the answer to the question immediately following, in the absence of your voting instruction, your broker may or may not vote your shares.

If I don't vote, will my broker vote for me?

If you own your shares in street name and you do not vote, your broker may vote your shares in its discretion on proposals determined to be "routine matters" under the rules of the New York Stock Exchange ("NYSE"). With respect to "non-routine matters," however, your broker may not vote your shares for you. Where a broker cannot vote your shares on non-routine matters because he has not received any instructions from you regarding how to vote, the number of unvoted shares on those matters is reported as "broker non-votes." These "broker non-vote" shares are counted toward the quorum requirement, but, generally speaking, they do not affect the determination of whether a matter is approved. See "*How are abstentions and broker non-votes counted?*" below. The election of directors, the approval of the amendments to our 2004 Long-Term Incentive Plan and the proposal to approve the Employee Stock Purchase Plan (the "Purchase Plan") are not considered to be routine matters under current NYSE rules, so your broker will not have discretionary authority to vote your shares held in street name on those matters. The proposal to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm is considered to be a routine matter on which brokers will be permitted to vote your shares without instructions from you.

What is the record date and what does it mean?

The record date for the 2010 Annual Meeting of Stockholders is April 1, 2010. The record date is established by the Board of Directors as required by Delaware law (the state in which we are incorporated). Owners of common stock at the close of business on the record date are entitled to receive notice of the meeting and vote at the meeting and any adjournments or postponements of the meeting.

How can I revoke a proxy?

A stockholder can revoke a proxy by taking any one of the following three actions before it is voted at the meeting:

- (a) giving written notice to the Corporate Secretary of ION,
- (b) delivering a later-dated proxy, or
- (c) voting in person at the meeting.

If you hold shares through a bank or broker, you must contact that bank or broker in order to revoke any prior voting instructions.

What constitutes a quorum?

The presence, in person or by proxy, of the holders of a majority of the outstanding shares of common stock constitutes a quorum. We need a quorum of stockholders to hold a valid Annual Meeting. If you have signed and returned your proxy card, your shares will be counted toward the quorum. If a quorum is not present, the chairman may adjourn the meeting, without notice other than by announcement at the meeting, until the required quorum is present.

As of the record date, 143,219,601 shares of common stock were outstanding. Thus, the presence of the holders of common stock representing at least 71,609,801 shares will be required to establish a quorum.

What are my voting choices when voting for director nominees, and what vote is needed to elect directors?

In voting on the election of three director nominees to serve until the 2013 Annual Meeting of Stockholders, stockholders may vote in one of the following ways:

- (a) in favor of all nominees,
- (b) withhold votes as to all nominees, or
- (c) withhold votes as to a specific nominee.

Directors will be elected by a plurality of the votes of the shares of common stock present or represented by proxy at the meeting. This means that director nominees receiving the highest number of “for” votes will be elected as directors. Votes “for” and “withheld” are counted in determining whether a plurality has been cast in favor of a director. You may not abstain from voting for purposes of the election of directors. Stockholders are not permitted to cumulate their votes in the election of directors.

The Board recommends a vote “**FOR**” all of the nominees.

What are my voting choices when voting on the proposal to approve the amendments to ION’s 2004 Long-Term Incentive Plan and what vote is needed to approve the proposal?

In voting to approve the amendments to ION’s 2004 Long-Term Incentive Plan, stockholders may vote in one of the following ways:

- (a) in favor of the approval of the amendments,
- (b) against the approval of the amendments, or
- (c) abstain from voting on the approval of the amendments.

The proposal to approve the amendments to ION’s 2004 Long-Term Incentive Plan will require the affirmative vote of a majority of the votes cast on the proposal by holders of common stock in person or represented by proxy at the meeting, so long as the total votes cast on the proposal exceed 50% of the shares of common stock outstanding.

The Board recommends a vote **“FOR”** this proposal.

What are my voting choices when voting on the proposal to approve the Purchase Plan and what vote is needed to approve the proposal?

In voting to approve the Purchase Plan proposal, stockholders may vote in one of the following ways:

- (a) in favor of the approval of the proposal,
- (b) against the approval of the proposal, or
- (c) abstain from voting on the proposal.

The proposal to approve the Purchase Plan will require the affirmative vote of a majority of the votes cast on the proposal by holders of common stock in person or represented by proxy at the meeting.

The Board recommends a vote **“FOR”** this proposal.

What are my voting choices when voting on the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm — or independent auditors — and what vote is needed to ratify their appointment?

In voting to ratify the appointment of Ernst & Young LLP as independent auditors for 2010, stockholders may vote in one of the following ways:

- (a) in favor of ratification,
- (b) against ratification, or
- (c) abstain from voting on ratification.

The proposal to ratify the appointment of Ernst & Young LLP will require the affirmative vote of a majority of the votes cast on the proposal by holders of common stock in person or represented by proxy at the meeting.

The Board recommends a vote **“FOR”** this proposal.

Will any other business be transacted at the meeting? If so, how will my proxy be voted?

We do not know of any business to be transacted at the Annual Meeting other than those matters described in this proxy statement. We believe that the periods specified in ION’s Bylaws for submitting proposals to be considered at the meeting have passed and no proposals were submitted. However, should any other matters properly come before the meeting, and any adjournments or postponements of the meeting, shares with respect to which voting authority has been granted to the proxies will be voted by the proxies in accordance with their judgment.

What if a stockholder does not specify a choice for a matter when returning a proxy?

Stockholders should specify their choice for each matter on the enclosed form of proxy. If no instructions are given, proxies that are signed and returned will be voted **“FOR”** the election of all director nominees, **“FOR”** the approval of the amendments to ION’s 2004 Long-Term Incentive Plan, **“FOR”** the approval of the Purchase Plan and **“FOR”** the proposal to ratify the appointment of Ernst & Young LLP as independent auditors for 2010.

How are abstentions and broker non-votes counted?

Abstentions are counted for purposes of determining whether a quorum is present at the Annual Meeting. A properly executed proxy card marked “withhold” with respect to the election of one or more directors will not be voted with respect to the director or directors indicated, although it will be counted for purposes of determining whether there is a quorum.

An abstention will have the same legal effect as a vote against the proposal to amend the 2004 Long-Term Incentive Plan and the proposal to approve the Purchase Plan because it will represent a share present in person or represented by proxy at the meeting and a vote cast on the proposals, thereby increasing the number of affirmative votes required to approve the proposals. Broker non-votes will have no effect on the outcome of the proposal to approve the Purchase Plan, and will have no effect on the outcome of the proposal to amend the 2004 Long-Term Incentive Plan, so long as the total votes cast on that proposal represent more than 50% of our outstanding shares of common stock entitled to vote.

An abstention will have the same legal effect as a vote against the proposal to ratify the appointment of the independent auditors, because it will represent a share present in person or represented by proxy at the meeting and a vote cast on the proposal, thereby increasing the number of affirmative votes required to approve the proposal. Broker non-votes will have no effect on the proposal to ratify the appointment of the independent auditors.

What is the deadline for submitting proposals to be considered for inclusion in the 2011 proxy statement?

Stockholder proposals requested to be included in ION's 2011 proxy statement must be received by ION not later than December 23, 2010. Proposals should be directed to David L. Roland, Senior Vice President, General Counsel and Corporate Secretary, ION Geophysical Corporation, 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839.

What is the deadline for submitting a nomination for director of ION for consideration at the Annual Meeting of Stockholders in 2011?

A proper director nomination may be considered at ION's 2011 Annual Meeting of Stockholders only if the proposal for nomination is received by ION not later than December 23, 2010. All nominations should be directed to David L. Roland, Senior Vice President, General Counsel and Corporate Secretary, ION Geophysical Corporation, 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839.

Will I have electronic access to the proxy materials and Annual Report?

The notice of Annual Meeting, Proxy Statement and 2009 Annual Report to Stockholders is also posted on ION's Internet website in the Investor Relations section at www.iongeo.com.

How can I obtain a copy of ION's Annual Report on Form 10-K?

A copy of our 2009 Annual Report on Form 10-K is enclosed with our Proxy Statement and 2009 Annual Report to Stockholders. You may obtain an additional copy of our 2009 Form 10-K at no charge by sending a written request to David L. Roland, Senior Vice President, General Counsel and Corporate Secretary, ION Geophysical Corporation, 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839. Our Form 10-K is also available (i) through the Investor Relations section of our website at www.iongeo.com and (ii) with exhibits on the SEC's website at <http://www.sec.gov>.

Please note that the contents of these and any other websites referenced in this proxy statement are not incorporated into this filing. Further, our references to the URLs for these and other websites listed in this proxy statement are intended to be inactive textual references only.

ITEM 1 — ELECTION OF DIRECTORS

Our Board of Directors consists of ten members. The Board is divided into three classes. Members of each class are elected for three-year terms and until their respective successors are duly elected and qualified, unless the director dies, resigns, retires, is disqualified or is removed. Our stockholders elect the directors in a designated class annually. Directors in Class II, which is the class of directors to be elected at this meeting, will serve on the Board until our Annual Meeting in 2013.

The current Class II directors are Franklin Myers, Bruce S. Appelbaum, PhD, and S. James Nelson, Jr., and their terms will expire at the 2010 Annual Meeting. At its meeting on February 12, 2010, the Board approved the recommendation of the Governance Committee that Messrs. Franklin, Appelbaum and Nelson be nominated to stand for reelection at the Annual Meeting to hold office until our 2013 Annual Meeting and until their successors are elected and qualified.

We have no reason to believe that any of the nominees will be unable or unwilling to serve if elected. However, if any nominee should become unable or unwilling to serve for any reason, proxies may be voted for another person nominated as a substitute by the Board of Directors, or the Board of Directors may reduce the number of Directors.

The Board of Directors recommends a vote “FOR” the election of Franklin Myers, Bruce S. Appelbaum, PhD, and S. James Nelson, Jr.

Class II Director Nominees For Re-Election For Term Expiring In 2013

FRANKLIN MYERS

Director since 2001
Age 57

Mr. Myers joined our Board of Directors in 2001. He is currently an Operating Advisor with Paine & Partners, LLC, a private equity firm focused on leveraged buyout transactions. Prior to joining Paine & Partners in October 2009, Mr. Myers was employed by Cameron International Corporation, an international manufacturer of oil and gas flow control equipment, as General Counsel and Corporate Secretary (from 1995 to 1999), President of the Cooper Energy Services Division (from 1998 until 2002), Senior Vice President (from 2001 to 2003), Senior Vice President and Chief Financial Officer (from 2003 to 2008) and Senior Advisor (from 2008 to October 2009). Prior to joining Cameron, he was Senior Vice President and General Counsel of Baker Hughes Incorporated, an oilfield services and equipment provider, and an attorney and partner with the law firm of Fulbright & Jaworski L.L.P. in Houston, Texas. Mr. Myers also currently serves on the Boards of Directors of Comfort Systems, Inc., a NYSE-listed provider of heating, ventilation and air conditioning services, and Frontier Oil Corporation, a NYSE-listed oil refining and marketing company. Mr. Myers is Chairman of the Compensation Committee, co-Chairman of the Finance Committee and a member of the Governance Committee of our Board of Directors. He holds a Bachelor of Science degree in Industrial Engineering from Mississippi State University and a Juris Doctorate degree with Honors from the University of Mississippi.

Mr. Myers' extensive experience as both a financial and legal executive makes him uniquely qualified as a valuable member of our Board and the Chairman of our Compensation Committee. While at Cameron, Baker Hughes and Fulbright & Jaworski, Mr. Myers was responsible for numerous successful finance and acquisition transactions, and his expertise gained through those experiences have proven to be a significant resource for our Board. In addition, Mr. Myers' service on Boards of Directors of other NYSE-listed companies enables Mr. Myers to observe and advise on favorable governance practices pursued by other public companies.

BRUCE S. APPELBAUM, PhD

Director since 2003
Age 62

Dr. Appelbaum joined our Board of Directors in 2003. He is the Chairman of Mosaic Natural Resources Ltd., an oil and gas exploration and production company focusing on opportunities in the North Sea. Prior to founding Mosaic in 2003, Dr. Appelbaum was President of Worldwide Exploration and New Ventures for Texaco, Inc. and a Vice President of Texaco. Dr. Appelbaum joined Texaco in 1990 as Division Manager of Texaco U.S.A.'s offshore exploration division and was elected an officer of Texaco in 2000. Dr. Appelbaum is a Trustee of the American Geological Institute Foundation and serves on the Advisory Board to the Department of Oceanography at Texas A&M University. He previously served on the Advisory Board of the School of Earth Sciences at Stanford University. Dr. Appelbaum also currently serves as a Director of CQS Rig Finance Fund Limited, an AIM- and CISX-listed closed-end investment company that invests in secured bonds issued to finance the construction of offshore oil and gas exploration and production infrastructure. Dr. Appelbaum is a member of the Audit Committee of our Board of Directors. He holds a Bachelor of

Science degree in Geology from the State University of New York — Buffalo and Master of Science and PhD degrees in Geological Oceanography from Texas A&M University.

Dr. Appelbaum's experience in the global exploration and production industry enables him to advise the Board on customer and industry issues and perspectives. Dr. Appelbaum's extensive educational achievements in the area of geology provides the Board with further resources to enable a better understanding of the global energy industry.

S. JAMES NELSON, JR.

Director since 2004
Age 67

Mr. Nelson joined our Board of Directors in 2004. In 2004, Mr. Nelson retired from Cal Dive International, Inc. (now named Helix Energy Solutions Group, Inc.), a marine contractor and operator of offshore oil and gas properties and production facilities, where he was a founding shareholder, Chief Financial Officer (prior to 2000), Vice Chairman (from 2000 to 2004) and a Director (from 1990 to 2004). From 1985 to 1988, Mr. Nelson was the Senior Vice President and Chief Financial Officer of Diversified Energies, Inc., a NYSE-traded company with \$1 billion in annual revenues and the former parent company of Cal Dive. From 1980 to 1985, Mr. Nelson served as Chief Financial Officer of Apache Corporation, an oil and gas exploration and production company. From 1966 to 1980, Mr. Nelson was employed with Arthur Andersen & Co. where, from 1976 to 1980, he was a partner serving on the firm's worldwide oil and gas industry team. Mr. Nelson also currently serves on the Board of Directors and Audit Committee of Oil States International, Inc. (a NYSE-listed diversified oilfield services company) and the Board of Directors and Audit and Compensation Committees of W&T Offshore, Inc. (a NYSE-listed oil and natural gas exploration and production company) and the general partner of Genesis Energy LP (an American Stock Exchange-listed operator of oil and natural gas pipelines and provider of services to refineries and industrial gas users). From 2005 until the company's sale in 2008, he served as a member of the Board of Directors and Audit and Compensation Committees of Quintana Maritime, Ltd., a provider of dry bulk cargo shipping services based in Athens, Greece. Mr. Nelson, who is also a Certified Public Accountant, is Chairman of the Audit Committee and co-Chairman of the Finance Committee of our Board of Directors. He holds a Bachelor of Science degree in Accounting from Holy Cross College and a Master of Business Administration degree from Harvard University.

Mr. Nelson is an experienced financial leader with the skills necessary to lead our Audit Committee. His service as Chief Financial Officer of Cal Dive International, Inc., Diversified Energies, Inc. and Apache Corporation, as well as his years with Arthur Andersen & Co., make him a valuable asset to ION, both on our Board of Directors and as the Chairman of our Audit Committee, particularly with regard to financial and accounting matters. In addition, Mr. Nelson's service on audit committees of other companies enables Mr. Nelson to remain current on audit committee best practices and current financial reporting developments within the energy industry.

Class III Incumbent Directors — Term Expiring In 2011

ROBERT P. PEEBLER

Director since 1999
Age 62

Mr. Peebler has been our Chief Executive Officer since April 2003 and a member of our Board of Directors since 1999. From 2003 until December 2008 and more recently commencing again in January 2010, Mr. Peebler also served as our President. Prior to joining ION on a full-time basis, Mr. Peebler was the founder, President and Chief Executive Officer of Energy Virtual Partners, an asset development and management company for oil and gas properties. Prior to founding Energy Virtual Partners in April 2001, Mr. Peebler was Vice President of e-Business Strategy and Ventures of the Halliburton Company, a provider of products and services to the petroleum and energy industries. Mr. Peebler joined Halliburton in 1996 when Halliburton acquired Landmark Graphics Corporation, a provider of workstation-based software for oil and gas exploration and production, where he had served as CEO since 1992. Mr. Peebler began his career with Schlumberger, a global oilfield and information services company, in wireline operations and spent 17 years with Schlumberger in various positions, including as head of U.S. wireline operations and executive in charge

of strategic marketing for the corporate energy services group. Mr. Peebler is a member of the Finance Committee of our Board of Directors. He holds a Bachelor of Science degree in Electrical Engineering from the University of Kansas.

Mr. Peebler's day-to-day leadership and involvement with our company provides him with personal knowledge regarding our operations. In addition, Mr. Peebler has worked more than 30 years in and around seismic and other oilfield service companies and his extensive experience enables the Board to not only be informed with regard to our company's operations and prospects, but also to better understand the direction of the industry.

JOHN N. SEITZ

Director since 2003
Age 58

Mr. Seitz joined our Board of Directors in 2003. Mr. Seitz is a founder and Vice Chairman of the Board of Endeavour International Corporation, an exploration and development company with activities in the North Sea and selected North American basins. From 2003 until 2006, Mr. Seitz served as co-CEO of Endeavour. From 1977 to 2003, Mr. Seitz held positions of increasing responsibility at Anadarko Petroleum Company, serving most recently as a Director and as President and Chief Executive Officer. Mr. Seitz is a Trustee of the American Geological Institute Foundation and serves on the Board of Managers of Constellation Energy Partners LLC, a company focused on the acquisition, development and exploitation of oil and natural gas properties and related midstream assets. He is a member of the Compensation and Governance Committees of our Board of Directors. Mr. Seitz holds a Bachelor of Science degree in Geology from the University of Pittsburgh, a Master of Science degree in Geology from Rensselaer Institute and is a Certified Professional Geoscientist in Texas. He also completed the Advanced Management Program at the Wharton School of Business.

Mr. Seitz' extensive experience as a leader of global exploration and production companies such as Endeavour and Anadarko has proven to be an important resource for our Board when considering industry and customer issues. In addition, Mr. Seitz' geology background and expertise assists the Board in better understanding industry trends and issues.

NICHOLAS G. VLAHAKIS

Director since 2008
Age 61

Mr. Vlahakis joined our Board of Directors in December 2008. In 2005, Mr. Vlahakis retired from Alliant Techsystems Inc. (ATK), an Edina, Minnesota-based supplier of aerospace and defense technologies, after serving as Executive Vice President and Chief Operating Officer since 2004 and Senior Vice President and Chief Operating Officer from 2002 to 2004. Prior to 2002, Mr. Vlahakis served as Alliant's Group Vice President, Defense and Group Vice President, Conventional Munitions. Commencing in 1982, Mr. Vlahakis worked for Hercules Aerospace Company, a supplier of aerospace products, most recently in the position of Vice President and General Manager, Tactical Propulsion Facility. Mr. Vlahakis joined Alliant in 1995 when Alliant acquired Hercules. He is a member of the Compensation Committee of our Board of Directors. Mr. Vlahakis holds a Bachelor of Science degree in Mechanical Engineering from Northwestern University, a Master of Science degree in Mechanical Engineering from Carnegie-Mellon University and a Master of Business Administration degree from the University of Utah.

As our products become more advanced and technologically complex, we believe that Mr. Vlahakis' extensive experience as an executive with companies involved in designing, manufacturing and marketing complex systems and technologies provides an important resource for our Board.

Class I Incumbent Directors — Term Expiring In 2012

THEODORE H. ELLIOTT, JR.

Director since 1987
Age 74

Mr. Elliott joined our Board of Directors in 1987. Since 1981, he has been in the venture capital business as the Chairman of Prime Capital Management Co., Inc., a Connecticut-based venture capital company, and as a private investor. Prior to Prime Capital Management, Mr. Elliott was Vice President of General Electric's venture capital subsidiary. Prior to General Electric, Mr. Elliott was head of investment banking at Clark, Dodge & Co. Inc. He also serves on the Board of Directors and the Compensation and Audit Committees of National Interstate, a specialty property and casualty insurance company based in Ohio. Mr. Elliott is a member of the Audit Committee of our Board of Directors. He is a Chartered Financial Analyst (CFA) and has a Bachelor of Art degree and a Master of Business Administration degree from Harvard University and a Juris Doctorate degree from New York University.

Mr. Elliott has extensive knowledge of the capital markets and accounting issues from his experiences with Prime Capital Management and General Electric, and is a valuable contributor to our Board's discussions of capital and liquidity needs. Mr. Elliott has also acquired an extensive knowledge of our company and industry during his 23-year tenure on our Board, which provides a unique perspective to the Board.

JAMES M. LAPEYRE, JR.

Director since 1998
Age 57

Mr. Lapeyre has been Chairman of our Board of Directors since 1999 and a Director since 1998. Mr. Lapeyre has been President of Laitram L.L.C., a privately-owned, New Orleans-based manufacturer of food processing equipment and modular conveyor belts, and its predecessors since 1989. Mr. Lapeyre joined our Board of Directors when we bought the DigiCOURSE marine positioning products business from Laitram in 1998. Mr. Lapeyre is Chairman of the Governance Committee and a member of the Compensation Committee of our Board of Directors. He holds a Bachelor of Art degree in History from the University of Texas and Master of Business Administration and Juris Doctorate degrees from Tulane University.

Mr. Lapeyre's status as a significant stockholder of our company enables our Board to have direct access to the perspective of our stockholders and ensures that the Board will take into consideration the interests of our stockholders in all Board decisions. In addition, Mr. Lapeyre has extensive knowledge regarding the marine products and technology that we acquired from Laitram in 1998.

G. THOMAS MARSH

Director since 2008
Age 66

Mr. Marsh joined our Board of Directors in December 2008. In 2006, Mr. Marsh retired as Executive Vice President of Lockheed Martin Space Systems Company, a subsidiary of Lockheed Martin Corporation. Lockheed Martin Space Systems designs, develops, tests, manufactures and operates advanced-technology systems, including human space flight systems, satellites and instruments, space observatories and interplanetary spacecraft, laser radar, fleet ballistic missiles, and missile defense systems. From 1969 until its merger in 1995 to form Lockheed Martin Corporation, Mr. Marsh worked at Martin Marietta Corporation, most recently in the position of President, Manned Space Systems. After 1995, he held positions of increasing responsibility within Lockheed Martin Corporation, including serving as President and General Manager of the Missiles and Space Operations business unit from 2002 until his appointment as Executive Vice President of Lockheed Martin Space Systems in 2003. He is a member of the Governance Committee of our Board of Directors. Mr. Marsh holds a Bachelor of Science degree in Electrical Engineering from the University of New Mexico, a Master of Business Administration degree from the University of Colorado, and attended the Massachusetts Institute of Technology's Sloan School of Management.

Mr. Marsh's extensive experience gained through more than 40 years at Lockheed Martin and its predecessors provides our Board with valuable perspectives and advice, particularly with regard to the development of complex systems comprised of advanced products and technology.

Mr. Guo joined our Board of Directors on April 1, 2010. Mr. Guo has been employed by China National Petroleum Corporation (“CNPC”), China’s largest oil company, and its affiliates in various positions of increasing responsibility since 1986. Since January 2010, Mr. Guo has been Vice President responsible for a consortium of companies led by CNPC related to the joint development of one of Iraq’s largest oil and gas development projects. From 2006 to December 2009, Mr. Guo served as Vice President of BGP Inc., China National Petroleum Corporation (“BGP”), a subsidiary of CNPC and the world’s largest land seismic contractor, responsible for international business development and operations, equipment and material procurement and management, and other areas. Between 1986 and 2006, Mr. Guo served in various positions at BGP, including Assistant President of BGP and President of BGP International, CNPC. Mr. Guo holds a Master of Geophysics degree from Changchun College of Geology and a Master of Business Administration degree in Global Energy from the University of Houston.

Mr. Guo’s position with CNPC, and particularly his experiences with BGP and extensive knowledge of the global seismic industry, enables our Board to receive current input and advice reflecting the perspectives of our seismic contractor customers. In addition, our land equipment joint venture with BGP and the ever-increasing importance of China in the global economy and the worldwide oil and gas industry has elevated our commercial involvement with China and Chinese companies. Mr. Guo’s insights with regard to issues relating to China provides our Board with an invaluable resource.

Mr. Guo was appointed to our Board of Directors under the terms of an agreement with BGP in connection with BGP’s purchase of 23,789,536 shares of our common stock in March 2010. Under the agreement, BGP is entitled to designate one individual to serve as a member of our Board unless BGP’s ownership of our common stock falls below 10%. To add Mr. Guo to our Board, in April 2010 we increased the number of directors constituting our entire Board from nine to ten.

Ownership of Equity Securities of ION

Except as otherwise set forth below, the following table sets forth information as of February 22, 2010, with respect to the number of shares of common stock owned by (i) each person known by us to be a beneficial owner of more than 5% of our common stock, (ii) each of our directors, (iii) each of our executive officers named in the 2009 Summary Compensation Table included in this proxy statement and (iv) all of our directors and executive officers as a group. Except where information was otherwise known by us, we have relied solely upon filings of Schedules 13D and 13G to determine the number of shares of our common stock owned by each person known to us to be the beneficial owner of more than 5% of our common stock as of such date.

The following table does not reflect BGP's acquisition of 23,789,536 shares of our common stock on March 25, 2010. If BGP's acquisition of common stock had occurred on or before February 22, 2010, BGP would have owned approximately 16.6% of our outstanding shares of common stock as of that date. BGP has pre-emptive rights to purchase additional shares of common stock under the terms of our agreement with BGP.

<u>Name of Owner</u>	<u>Common Stock(1)</u>	<u>Rights to Acquire(2)</u>	<u>Restricted Stock(3)</u>	<u>Percent of Common Stock(4)</u>
James M. Lapeyre, Jr.(5)	9,550,832	90,000	—	8.0%
Fletcher Asset Management, Inc.(6)	—	9,669,434	—	7.5%
Wells Fargo and Company(7)	8,374,580	—	—	7.0%
BlackRock, Inc.(8)	8,227,597	—	—	6.9%
Laitram, L.L.C.(9)	7,605,345	—	—	6.4%
Barclays Global Investors, NA and related entities(10)	6,209,277	—	—	5.2%
Robert P. Peebler	230,875	1,370,000	205,296	1.6%
Bruce S. Appelbaum, PhD(11)	44,471	80,000	—	*
Theodore H. Elliott, Jr.(12)	169,000	70,000	—	*
G. Thomas Marsh	82,000	—	—	*
Franklin Myers	92,881	55,000	—	*
John N. Seitz	37,895	80,000	—	*
S. James Nelson, Jr.	28,000	70,000	—	*
Nicholas G. Vlahakis	82,000	—	—	*
Guo Yueliang(13)	—	—	—	*
James R. Hollis(14)	52,843	228,750	—	*
R. Brian Hanson	62,000	118,750	90,000	*
David L. Roland	42,714	85,000	39,999	*
Christopher M. Friedemann	64,893	245,000	19,999	*
All directors and executive officers as a group (15 Persons)	10,552,837	2,567,500	359,026	11.1%

* Less than 1%

- (1) Represents shares for which the named person (a) has sole voting and investment power or (b) has shared voting and investment power. Excluded are shares that (i) are unvested restricted stock holdings or (ii) may be acquired through stock option or warrant exercises.
- (2) Represents shares of common stock that may be acquired through conversion of our outstanding shares of Series D-1 Cumulative Convertible Preferred Stock, Series D-2 Cumulative Convertible Preferred Stock and Series D-3 Cumulative Convertible Preferred Stock beneficially owned by Fletcher Asset Management, Inc. and exercise of stock options in the case of our officers and directors, that are currently convertible or exercisable or will be convertible or exercisable on or before April 21, 2010. Please read note 6 below.

- (3) Represents unvested shares subject to a vesting schedule, forfeiture risk and other restrictions. Although these shares are subject to forfeiture, the holder has the right to vote the shares and receive dividends until they are forfeited.
- (4) Assumes shares that such person has rights to acquire presently and on or before April 21, 2010, are outstanding.
- (5) These shares of common stock include (i) 16,950 shares over which Mr. Lapeyre holds joint voting power and investment control with his wife; and (ii) 34,043 shares previously owned by Mr. Lapeyre's wife and transferred by Mr. Lapeyre's wife into Mr. Lapeyre's account, in which Mr. Lapeyre disclaims any beneficial interest. These shares of common stock also include 399,330 shares that Mr. Lapeyre holds as a custodian or trustee for the benefit of his children, 7,605,345 shares owned by Laitram, and 10,500 shares that Mr. Lapeyre holds as a co-trustee with his wife for the benefit of his children, in all of which Mr. Lapeyre disclaims any beneficial interest. Please read note 9 below. Mr. Lapeyre has sole voting power over only 1,484,664 of these shares of common stock.
- (6) Fletcher Asset Management, Inc. has filed its Schedule 13G/A on behalf of itself, Fletcher International Ltd. and Alphonse Fletcher, Jr., the Chairman and Chief Executive Officer of Fletcher Asset Management, Inc. The address for Fletcher Asset Management, Inc. is 48 Wall Street, 5th Floor, New York, New York 10005. As of February 22, 2010 and as of the date of the filing of the Schedule 13G/A, Fletcher International Ltd., an affiliate of Fletcher Asset Management, held all of the outstanding shares of our Series D-1 Cumulative Convertible Preferred Stock, Series D-2 Cumulative Convertible Preferred Stock and Series D-3 Cumulative Convertible Preferred Stock, which are convertible into shares of our common stock. The number of shares of common stock that may be acquired upon conversion is subject to adjustment in certain events. In its filed Schedule 13G/A, Fletcher designated that it has the right to acquire a total of up to 11,669,434 shares of our common stock. In the above table, we have designated that Fletcher has the right to acquire a total of up to 9,669,434 shares of our common stock. Under our agreement with Fletcher regarding the Series D Preferred Stock held by Fletcher, the aggregate number of shares of our common stock issued or issuable to Fletcher upon conversion or redemption of, or as dividends paid on, the Series D Preferred Stock cannot 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 our common stock issued or issuable to Fletcher with respect to the Series D Preferred Stock ever exceed 15,724,306 shares. Our agreement with Fletcher had originally designated 7,669,434 shares as the original Maximum Number. On November 28, 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 purported to deliver a second notice to us purporting to increase the Maximum Number from 9,669,434 shares to 11,669,434 shares, to become effective on November 19, 2009. Under our agreement with Fletcher, we do not believe that Fletcher has the right to issue more than one notice to increase the Maximum Number. On November 6, 2009, we filed an action in the Court of Chancery of the State of Delaware, seeking a declaration that, under the relevant agreement, Fletcher is permitted to deliver only one notice to increase the Maximum Number and that its purported second notice is legally invalid. The court has not yet ruled on the issue, so we have designated in the above table that Fletcher has the right to acquire a total of up to 9,669,434 shares of our common stock. On April 8, 2010, Fletcher converted 8,000 shares of our Series D-1 Cumulative Convertible Preferred Stock and 35,000 shares of our Series D-3 Cumulative Convertible Preferred Stock into a total of 9,659,231 shares of our common stock. After the conversion, Fletcher continued to hold 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. The conversion is not reflected in the above table.
- (7) Wells Fargo and Company filed its Schedule 13G on behalf of itself and the following subsidiaries: Wells Capital Management Incorporated and Wells Fargo Funds Management, LLC. The address for Wells Fargo and Company is 420 Montgomery Street, San Francisco, California 94104. Wells Fargo and Company and these subsidiaries have aggregate sole voting and dispositive power over 8,374,580 shares of common stock.
- (8) The address for BlackRock, Inc. is 40 East 52nd Street, New York, New York 10022.

- (9) The address for Laitram, L.L.C. is 220 Laitram Lane, Harahan, Louisiana 70123. Mr. Lapeyre is the President and chief executive officer of Laitram. Please read note 5 above. Mr. Lapeyre disclaims beneficial ownership of any shares held by Laitram.
- (10) The address for Barclays Global Investors, NA is 400 Howard Street, San Francisco, California 94105. According to a statement on Schedule 13G dated February 5, 2009 and filed with the SEC, Barclays Global Investors, NA and the other entities described in this footnote beneficially own 6,209,277 shares. The total in the table reflects the combined ownership of various Barclays entities. The Schedule 13G indicates the following ownership interests: (i) Barclays Global Investors, NA is the beneficial owner of 2,155,910 shares (2.17%), with sole voting power with respect to 1,883,776 shares and sole dispositive power with respect to 2,155,910 shares; (ii) Barclays Global Fund Advisors, located at the above address, is the beneficial owner of 3,994,606 shares (4.02%), with sole voting power with respect to 2,975,883 shares and sole dispositive power with respect to 3,994,606 shares and (iii) Barclays Global Investors, Ltd., located at Murray House, 1 Royal Mint Court, London, England EC3N 4HH, is the beneficial owner of 58,761 shares (0.06%), with sole voting power with respect to 1,845 shares and sole dispositive power with respect to 58,761 shares.
- (11) The shares of common stock include 44,471 shares over which Dr. Appelbaum holds joint voting power and investment control with his wife.
- (12) These shares of common stock exclude 4,000 shares owned by Mr. Elliott's wife, in which Mr. Elliott disclaims any beneficial interest.
- (13) Mr. Guo was appointed to the ION Board on April 1, 2010.
- (14) Mr. Hollis' employment with ION ended on January 29, 2010. These shares of common stock exclude 6,065 shares owned by Mr. Hollis' wife, in which Mr. Hollis disclaims any beneficial interest.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), requires directors and certain officers of ION, and persons who own more than 10% of ION's common stock, to file with the Securities and Exchange Commission ("SEC") and the NYSE initial statements of beneficial ownership on Form 3 and changes in such ownership on Forms 4 and 5. Based on our review of the copies of such reports, we believe that during 2009 our directors, executive officers and stockholders holding greater than 10% of our outstanding shares complied with all applicable filing requirements under Section 16(a) of the Exchange Act, and that all of their filings had been timely made.

Board of Directors and Corporate Governance

Governance Initiatives. We maintain a corporate governance program for the purpose of defining responsibilities, setting standards of professional and personal conduct and promoting compliance with these responsibilities and standards. We review our governance practices and update them, as appropriate, based upon Delaware law, rules and listing standards of the NYSE, SEC regulations, and practices recommended by our outside advisors.

Some of our corporate governance initiatives include the following:

- Our Board has affirmatively determined that eight of our ten directors meet the NYSE standard for independence. Robert P. Peebler is not independent under applicable standards because he is our current Chief Executive Officer and an employee of ION. Our most recent director, Guo Yueliang, was added to the Board on April 1, 2010, and as of the date of this proxy statement our Board had not yet completed its analysis as to whether Mr. Guo meets the NYSE standards for independence.
- Our Audit Committee has at least one member who qualifies as a "financial expert" in accordance with Section 407 of the Sarbanes-Oxley Act of 2002.
- All members of our Audit Committee, Governance Committee and Compensation Committee are independent.

- Our independent directors meet in executive session at each regularly scheduled Board meeting without the presence of management. Each of our committees meets in executive session at each regularly scheduled meeting without the presence of management, and our Audit Committee meets in private session with representatives of our independent registered public accounting firm at least quarterly without the presence of management.
- Every year, our management employees and senior finance and accounting employees affirm their compliance with our Code of Ethics and other principal compliance policies. New employees sign a written certification of compliance with these policies upon commencing employment.
- The Board has adopted written Corporate Governance Guidelines to assist its members in fulfilling their responsibilities.
- Board members are required to offer their resignation from the Board if they retire or materially change the position they held when they began serving as a director on the Board.
- We comply with and operate in a manner consistent with regulations prohibiting loans to our directors and executive officers.
- Members of our Disclosure Committee, consisting of management employees and senior finance and accounting employees, review all quarterly and annual reports before filing with the SEC.
- We have a hotline and website available to all employees to report ethics and compliance concerns, anonymously if preferred, including concerns related to accounting, accounting controls, financial reporting and auditing matters. The hotline and website are administered and monitored by an independent hotline monitoring company. The Board has adopted a policy and procedures for the receipt, retention and treatment of complaints and employee concerns received through the hotline or website. The policy is available on our website at http://www.iongeo.com/content/released/Hotline_Policy-ION-Nov_5_2007.pdf.
- On an annual basis, each director and each named executive officer (as that term is defined under Item 402(a) of Regulation S-K) is obligated to complete a questionnaire that requires disclosure of any transactions with ION in which the director or executive officer, or any member of his or her immediate family, has a direct or indirect material interest.
- We have included as Exhibits 31.1 and 31.2 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2009, filed with the SEC, certificates of our Chief Executive Officer and Chief Financial Officer, respectively, certifying as to the quality of our public disclosure. In addition, in 2009, we submitted to the NYSE a certificate of our Chief Executive Officer certifying that he is not aware of any violation by ION of the NYSE corporate governance listing standards.

Code of Ethics. We require all employees to adhere to our Code of Ethics in addressing legal and ethical issues encountered in conducting their work. The Code of Ethics requires that our employees avoid conflicts of interest, comply with all laws and other legal requirements, conduct business in an honest and ethical manner, promote full and accurate financial reporting, and otherwise act with integrity and in ION's best interest. Our Code of Ethics applies to our directors and all employees, including our Chief Executive Officer and senior financial officers (our Chief Financial Officer, Controller, Treasurer and all other financial officers and executives).

We have made our Code of Ethics, corporate governance guidelines, charters for the committees of our Board (other than our Finance Committee charter) and other information that may be of interest to investors available on the Investor Relations section of our website at http://www.iongeo.com/Investor_Relations/Corporate_Governance/. Copies of this information may also be obtained by writing to us at ION Geophysical Corporation, Attention: Senior Vice President, General Counsel and Corporate Secretary, 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839.

Presiding Non-Management Director. Under NYSE corporate governance listing standards, James M. Lapeyre, Jr. has been designated as the presiding non-management director to lead non-management directors

meetings of the Board. Our non-management directors meet at regularly scheduled executive sessions without management, over which Mr. Lapeyre presides.

Communications to Board and Presiding Non-Management Director. Stockholders and other interested parties may communicate with the Board and our presiding non-management director or non-management independent directors as a group by writing to “Chairman of the Board” (if the intended recipient is the Board) or “Presiding Non-management Director” (if the intended recipient is the presiding non-management director, or the non-management directors as a whole), c/o Corporate Secretary, ION Geophysical Corporation, 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839. Inquiries sent by mail will be reviewed by our Corporate Secretary and, if they pertain to the functions of the Board or Board committees or if the Corporate Secretary otherwise determines that they should be brought to the intended recipient’s attention, they will be forwarded to the intended recipient. Concerns relating to accounting, internal controls, auditing or compliance matters will be brought to the attention of our Audit Committee and handled in accordance with procedures established by the Audit Committee.

Our Corporate Secretary’s review of these communications will be performed with a view that the integrity of this process be preserved. For example, items that are unrelated to the duties and responsibilities of the Board, such as personal employee complaints, product inquiries, new product suggestions, resumes and other forms of job inquiries, surveys, business solicitations or advertisements, will not be forwarded to those individuals. In addition, material that is considered to be hostile, threatening, illegal or similarly unsuitable will not be forwarded to them. Except for these types of items, the Corporate Secretary will promptly forward written communications to the intended recipient. Within the above guidelines, the independent directors have granted the Corporate Secretary discretion to decide what correspondence should be shared with ION management and independent directors.

2009 Meetings of the Board and Stockholders. During 2009, the Board of Directors held 16 meetings and the four standing committees of the Board of Directors held a total of 22 meetings. Overall, the rate of attendance by each director at such meetings exceeded 96%. Each director attended at least 88% of the aggregate number of meetings of the Board of Directors and the committees on which he served during 2009. We do not require our Board members to attend our Annual Meeting of Stockholders; however, three of our directors attended our 2009 Annual Meeting held in May 2009.

Independence. In determining independence, each year the Board determines whether directors have any “material relationship” with ION. When assessing the “materiality” of a director’s relationship with ION, the Board considers all relevant facts and circumstances, not merely from the director’s standpoint, but from that of the persons or organizations with which the director has an affiliation, and the frequency or regularity of the services, whether the services are being carried out at arm’s length in the ordinary course of business and whether the services are being provided substantially on the same terms to ION as those prevailing at the time from unrelated parties for comparable transactions. Material relationships can include commercial, banking, industrial, consulting, legal, accounting, charitable and familial relationships. Factors that the Board may consider when determining independence for purposes of this determination include (1) not being a current employee of ION or having been employed by ION within the last three years; (2) not having an immediate family member who is, or who has been within the last three years, an executive officer of ION; (3) not personally receiving or having an immediate family member who has received, during any 12-month period within the last three years, more than \$120,000 per year in direct compensation from ION other than director and committee fees; (4) not being employed or having an immediate family member employed within the last three years as an executive officer of another company of which any current executive officer of ION serves or has served, at the same time, on that company’s compensation committee; (5) not being an employee of or a current partner of, or having an immediate family member who is a current partner of, a firm that is ION’s internal or external auditor; (6) not having an immediate family member who is a current employee of such an audit firm who personally works on ION’s audit; (7) not being or having an immediate family member who was within the last three years a partner or employee of such an audit firm and who personally worked on ION’s audit within that time; (8) not being a current employee, or having an immediate family member who is a current executive officer, of a company that has made payments to, or received payments from, ION for property or services in an amount that, in any of the last three fiscal years, exceeds the greater of \$1 million

or 2% of the other company's consolidated gross revenues; or (9) not being an executive officer of a charitable organization to which, within the preceding three years, ION has made charitable contributions in any single fiscal year that has exceeded the greater of \$1 million or 2% of such organization's consolidated gross revenues.

Our Board has affirmatively determined that James M. Lapeyre, Jr., Bruce S. Appelbaum, Theodore H. Elliott, Jr., G. Thomas Marsh, Franklin Myers, S. James Nelson, Jr., John N. Seitz, and Nicholas G. Vlahakis do not have a material relationship with ION within the meaning of the NYSE's listing standards, and that each of them is independent from management and from our independent registered public accounting firm, as required by NYSE listing standard rules regarding director independence. See "*— Committees of the Board — Audit Committee*" below. Because he was very recently added to our Board, our Board has not yet completed its determination as to whether Guo Yueliang meets the requirements under the NYSE listing standard rules regarding director independence.

Our Chairman, Mr. Lapeyre, is an executive officer and significant shareholder of Laitram, L.L.C., a company with which ION has ongoing contractual relationships, and Mr. Lapeyre and Laitram together owned approximately 8.0% of our outstanding common stock as of February 22, 2010. Our Board has determined that these contractual relationships have not interfered with Mr. Lapeyre's demonstrated independence from our management, and that the services performed by Laitram for ION are being provided at arm's length in the ordinary course of business and substantially on the same terms to ION as those prevailing at the time from unrelated parties for comparable transactions. In addition, the services provided by Laitram to ION resulted in payments by ION to Laitram in an amount less than 2% of Laitram's 2009 consolidated gross revenues. As a result of these factors, our Board has determined that Mr. Lapeyre, along with each of our other non-management directors (other than Mr. Guo), is independent within the meaning of the NYSE's director independence standards. For an explanation of the contractual relationship between Laitram and ION, see "*— Certain Transactions and Relationships*" below.

Risk Oversight. Our Board oversees an enterprise-wide approach to risk management, designed to support the achievement of organizational objectives, including strategic objectives, to improve long-term organizational performance and enhance shareholder value. A fundamental part of risk management is not only understanding the risks a company faces and what steps management is taking to manage those risks, but also understanding what level of risk is appropriate for the company. The involvement of the full Board in setting ION's business strategy is a key part of its assessment of the company's appetite for risk and also a determination of what constitutes an appropriate level of risk for the company. The Board also regularly reviews information regarding the company's credit, liquidity and operations, as well as the risks associated with each. While the Board has the ultimate oversight responsibility for the risk management process, various committees of the Board also have responsibility for risk management. In particular, the Audit Committee focuses on financial risk, including internal controls, and receives an annual risk assessment report from ION's internal auditors. In addition, in setting compensation, the Compensation Committee strives to create incentives that encourage a level of risk-taking behavior consistent with ION's business strategies. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, the entire Board is regularly informed through committee reports about such risks.

Separation of CEO and Chairman of the Board. We separate the roles of CEO and Chairman of the Board in recognition of the differences between the two roles. The CEO is responsible for setting the strategic direction for the company and the day-to-day leadership and performance of the company, while the Chairman of the Board provides guidance to the CEO and sets the agenda for Board meetings and presides over the meetings of the full Board.

Committees of the Board

The Board of Directors has established four standing committees to facilitate and assist the Board in the execution of its responsibilities. The four standing committees are the Audit Committee, the Compensation Committee, the Governance Committee and the Finance Committee. The Governance Committee functions as the Board's nominating committee. In addition, the Board establishes temporary special committees from time

to time on an as-needed basis. The Audit Committee, Compensation Committee and Governance Committee are composed entirely of non-employee directors. The Finance Committee consists of three directors, two of whom are non-employee directors. During 2009, the Audit Committee met 18 times, the Compensation Committee met six times, the Governance Committee met three times, and the Finance Committee met five times.

The current members of the four standing committees of the Board of Directors are identified below.

<u>Director</u>	<u>Compensation Committee</u>	<u>Audit Committee</u>	<u>Governance Committee</u>	<u>Finance Committee</u>
James M. Lapeyre, Jr.	*		**	
Bruce S. Appelbaum, PhD.		*		
Theodore H. Elliott, Jr.		*		
G. Thomas Marsh			*	
Franklin Myers	**		*	**
S. James Nelson, Jr.		**		**
Robert P. Peebler				*
John N. Seitz	*		*	
Nicholas G. Vlahakis	*			

* Member

** Chair

Audit Committee

The Audit Committee is a separately-designated standing audit committee as defined in Section 3(a)(58)(A) of the Exchange Act. The Audit Committee oversees matters relating to financial reporting, internal controls, risk management and compliance. These responsibilities include appointing, overseeing, evaluating and approving the fees of our independent auditors, reviewing financial information that is provided to our stockholders and others, reviewing with management our system of internal controls and financial reporting process, and monitoring our compliance program and system.

The Audit Committee operates under a written charter, which sets forth the functions and responsibilities of the committee. A copy of the charter can be viewed on our website at http://www.iongeo.com/content/released/audit_committee_charter_ion_march52008.pdf.

The Board of Directors has determined that each member of the Audit Committee is financially literate and satisfies the definition of “independent” as established in the NYSE corporate governance listing standards. In addition, the Board of Directors has determined that Mr. Nelson, the Chairman of the Audit Committee, is qualified as an audit committee financial expert within the meaning of SEC regulations, and that he has accounting and related financial management expertise within the meaning of the listing standards of the NYSE and Rule 10A-3 under the Exchange Act.

ION’s Corporate Governance Guidelines provide that no member of the Audit Committee may simultaneously serve on the audit committees of more than two other public companies unless the ION Board determines that such simultaneous service would not impair the ability of such director to effectively serve on ION’s Audit Committee. In addition, the listing standards of the NYSE provide that if an audit committee member simultaneously serves on the audit committees of more than three public companies, and the listed company does not limit the number of audit committees on which its audit committee members serve, then in each case, the board must determine that such simultaneous service would not impair the ability of such member to effectively serve on the listed company’s audit committee. As described above under “— *Class II Director Nominees for Re-Election for Term Expiring in 2013,*” Mr. Nelson serves as Chairman of the ION Audit Committee and serves on the audit committees of three other public companies. The ION Board considered all relevant factors, including the incremental time and responsibilities that such additional service would require of Mr. Nelson and the fact that Mr. Nelson devotes full time to making his capacity as a

financial expert available to public companies, and the Board determined that Mr. Nelson's simultaneous service would not impair his ability to effectively serve on ION's Audit Committee.

Compensation Committee

The Compensation Committee has responsibility for the compensation of our executive officers, including our chief executive officer, and the administration of our executive compensation and benefit plans. The Compensation Committee also has authority to retain or replace outside counsel, compensation and benefits consultants or other experts to provide it with independent advice, including the authority to approve the fees payable and any other terms of retention. All actions regarding executive officer compensation require Compensation Committee approval. The Compensation Committee completes a comprehensive review of all elements of compensation at least annually. If it is determined that any changes to any executive officer's total compensation are necessary or appropriate, the Compensation Committee obtains such input from management as it determines to be necessary or appropriate. All compensation decisions with respect to executives other than the chief executive officer are determined in discussion with, and frequently based in part upon the recommendation of, the chief executive officer. The Compensation Committee makes all determinations with respect to the compensation of the chief executive officer, including, but not limited to, establishing performance objectives and criteria related to the payment of his compensation, and determining the extent to which such objectives have been established, obtaining such input from the Committee's independent compensation advisors as it deems necessary or appropriate.

As part of its responsibility to administer our executive compensation plans and programs, the Compensation Committee, usually near the beginning of the calendar year, establishes the parameters of the annual incentive plan awards, including establishing the performance goals relative to our performance that will be applicable to such awards and the similar awards for our other senior executives. It also reviews our performance against the objectives established for awards payable in respect of the prior calendar year, and confirms the extent, if any, to which such objectives have been obtained, and the amounts payable to each of our executive officers in respect of such achievement.

The Compensation Committee also determines the appropriate level and type of awards, if any, to be granted to each of our executive officers pursuant to our equity compensation plan, and approves the total annual grants to other key employees, to be granted in accordance with a delegation of authority to our corporate human resources officer.

The Compensation Committee reviews, and has the authority to recommend to the Board for adoption, any new executive compensation or benefit plans that are determined to be appropriate for adoption by ION, including those that are not otherwise subject to the approval of our stockholders. It reviews any contracts or other transactions with current or former elected officers of the corporation. In connection with the review of any such proposed plan or contract, the Compensation Committee may seek from its independent advisors such advice, counsel and information as it determines to be appropriate in the conduct of such review. The Compensation Committee will direct such outside advisors as to the information it requires in connection with any such review, including data regarding competitive practices among the companies with which ION generally compares itself for compensation purposes.

The Compensation Committee operates pursuant to a written charter that sets forth the functions and responsibilities of the committee. A copy of the charter can be viewed on our website at http://www.iongeo.com/content/released/comp_committee_charterionfeb_2008.pdf. The Board of Directors has determined that each member of the Compensation Committee satisfies the definition of "independent" as established in the NYSE corporate governance listing standards.

Compensation Committee Interlocks and Insider Participation

The members of the Compensation Committee are Franklin Myers (Chairman), James M. Lapeyre, Jr., John N. Seitz and Nicholas G. Vlahakis. No member of the Committee is, or was during 2009, an officer or employee of ION. Mr. Lapeyre is President and Chief Executive Officer and a significant equity owner of Laitram, L.L.C, which has had a business relationship with ION since 1999 that continued into 2009. During

2009, we paid Laitram and its affiliates a total of approximately \$4.0 million, which consisted of approximately \$3.2 million for manufacturing services, \$700,000 for rent and other pass-through third party facilities charges, and \$100,000 for other services. See “— *Certain Transactions and Relationships*” below. During 2009:

- No executive officer of ION served as a member of the compensation committee of another entity, one of whose executive officers served on the Compensation Committee of ION;
- No executive officer of ION served as a director of another entity, one of whose executive officers served on the Compensation Committee of ION; and
- No executive officer of ION served as a member of the compensation committee of another entity, one of whose executive officers served as a director of ION.

Governance Committee

The Governance Committee functions as the Board’s nominating and corporate governance committee and advises the Board of Directors with regard to matters relating to governance practices and policies, management succession, and composition and operation of the Board and its committees, including reviewing potential candidates for membership on the Board and recommending to the Board nominees for election as directors of ION. In addition, the Governance Committee reviews annually with the full Board and our Chief Executive Officer the succession plans for senior executive officers and makes recommendations to the Board regarding the selection of individuals to occupy these positions.

In identifying and selecting new director candidates, the Governance Committee considers the Board’s current and anticipated strengths and needs and a candidate’s experience, knowledge, skills, expertise, integrity, diversity, ability to make independent analytical inquiries, understanding of the company’s business environment, willingness to devote adequate time and effort to Board responsibilities, and other relevant factors. The Governance Committee has not established specific minimum age, education, years of business experience or specific types of skills for potential director candidates, but, in general, expects that qualified candidates will have ample experience and a proven record of business success and leadership. The committee also seeks an appropriate balance of experience and expertise in accounting and finance, technology, management, international business, compensation, corporate governance, strategy, industry knowledge and general business matters. In addition, the committee seeks a diversity of experience, professions, skills, geographic representation and backgrounds. The committee may rely on various sources to identify potential director nominees, including input from directors, management and others the committee feels are reliable, and professional search firms.

The Governance Committee will consider recommendations for director nominations made by a stockholder or other sources (including self-nominees) on the same basis as other candidates. For consideration by the Governance Committee, a recommendation of a candidate must be submitted in writing to the Governance Committee in care of our Corporate Secretary at our principal executive offices. The submission must include sufficient details regarding the qualifications of the potential candidate. In general, nominees for election should possess (1) the highest level of integrity and ethical character, (2) strong personal and professional reputation, (3) sound judgment, (4) financial literacy, (5) independence, (6) significant experience and proven superior performance in professional endeavors, (7) an appreciation for board and team performance, (8) the commitment to devote the time necessary, (9) skills in areas that will benefit the Board and (10) the ability to make a long-term commitment to serve on the Board.

Also, our Bylaws permit stockholders to nominate individuals for director for consideration at an annual stockholders’ meeting. A proper director nomination may be considered at ION’s 2011 Annual Meeting only if the proposal for nomination is received by ION not later than December 23, 2010. All nominations should be directed to David L. Roland, Senior Vice President, General Counsel and Corporate Secretary, ION Geophysical Corporation, 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839.

The Governance Committee operates pursuant to a written charter, which sets forth the functions and responsibilities of the committee. A copy of the charter can be viewed on our website at

http://www.iongeo.com/content/released/Governance_Committee_Charter-ION.pdf. The Board of Directors has determined that each member of the Governance Committee satisfies the definition of “independent” as established in the NYSE corporate governance listing standards.

Finance Committee

The Finance Committee has responsibility for overseeing all areas of corporate finance for ION. The Finance Committee is responsible for reviewing with ION management, and has the power and authority to approve on behalf of the Board, ION’s strategies, plans, policies and actions related to corporate finance, including, but not limited to, (a) capital structure plans and strategies and specific equity or debt financings, (b) capital expenditure plans and strategies and specific capital projects, (c) strategic and financial investment plans and strategies and specific investments, (d) cash management plans and strategies and activities relating to cash flow, cash accounts, working capital, cash investments and treasury activities, including the establishment and maintenance of bank, investment and brokerage accounts, (e) financial aspects of insurance and risk management, (f) tax planning and compliance, (g) dividend policy, (h) plans and strategies for managing foreign currency exchange exposure and other exposures to economic risks, including plans and strategies with respect to the use of derivatives, and (i) reviewing and making recommendations to the Board with respect to any proposal by ION to divest any asset, investment, real or personal property, or business interest if such divestiture is required to be approved by the Board. The Finance Committee does not have oversight responsibility with respect to ION’s financial reporting, which is the responsibility of the Audit Committee.

The Finance Committee operates pursuant to a written charter that sets forth the functions and responsibilities of the committee. A copy of the charter can be obtained by writing to us at ION Geophysical Corporation, Attention: Corporate Secretary, 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839. The Board of Directors has determined that a majority of the members of the Finance Committee (including its co-Chairmen) satisfies the definition of “independent” as established in the NYSE corporate governance listing standards.

Stock Ownership Requirements

The Board adopted stock ownership requirements for ION’s directors effective January 2006 and revised the requirements effective January 2009. The Board adopted these requirements in order to align the economic interests of the directors with those of our stockholders and further focus our emphasis on enhancing stockholder value. Under these requirements, each non-employee director is expected to own at least 36,000 shares of ION stock. New and current directors will have three years to acquire and increase the director’s ownership of ION stock to satisfy the requirements. The stock ownership requirements are subject to modification by the Board in its discretion. The Board has also adopted stock ownership requirements for senior management of ION. See “*Executive Compensation — Compensation Discussion and Analysis — Elements of Compensation — Stock Ownership Requirements; Hedging Policy*” below.

The Governance Committee and the Board regularly review and evaluate ION’s directors’ compensation program on the basis of current and emerging compensation practices for directors, emerging legal, regulatory and corporate compliance developments and comparisons with director compensation programs of other similarly-situated public companies.

Certain Transactions and Relationships

Mr. Lapeyre is the President and Chief Executive Officer and a significant equity owner of Laitram, L.L.C. 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 8.0% of our outstanding common stock as of February 22, 2010.

We acquired DigiCourse, Inc., our marine positioning products business, from Laitram in 1998 and 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 with certain accounting, software, manufacturing and maintenance services. Manufacturing services consist primarily of machining of parts for

our marine positioning systems. The term of this written agreement expired in September 2001 but we and Laitram continue to operate under its terms. In addition, 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 I/O Marine Systems, Inc., we agreed to lease certain office and warehouse space from Lapeyre Properties until January 2011. During 2009, we paid Laitram and its affiliates a total of approximately \$4.0 million, which consisted of approximately \$3.2 million for manufacturing services, \$700,000 for rent and other pass-through third party facilities charges, and \$100,000 for other services. For the 2008 and 2007 fiscal years, we paid Laitram and its affiliates a total of approximately \$4.3 million and \$4.9 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.

Mr. Guo is a Vice President of CNPC. CNPC and its subsidiary, BGP, have been customers of our products and services for many years. For our fiscal years ended December 31, 2009 and 2008, BGP and CNPC collectively accounted for approximately 8.0% and 5.1% of our consolidated net sales, respectively. In addition, in March 2010, prior to Mr. Guo being appointed to the Board, we entered into the following transactions with BGP:

- We sold 23,789,536 shares of our common stock to BGP for a purchase price of \$2.80 per share in a privately-negotiated transaction pursuant to a Stock Purchase Agreement we entered into with BGP. After giving effect to the sale of our shares of common stock, BGP has beneficial ownership of approximately 16.6% of our outstanding shares of common stock. The shares of our common stock acquired by BGP are subject to the terms and conditions of an Investor Rights Agreement that we entered into with BGP upon their purchase of the shares. Under the Investor Rights Agreement, for so long as BGP owns as least 10% of our outstanding shares of common stock, BGP will have the right to nominate one director to serve on our Board. The Investor Rights Agreement also provides that whenever we may issue shares of our common stock or other securities convertible into, exercisable or exchangeable for our common stock, BGP will have certain pre-emptive rights to subscribe for a number of such shares or other securities as may be necessary to retain its proportionate ownership of common stock that would exist before such issuance. These pre-emptive rights are subject to usual and customary exceptions, such as issuances of securities as equity compensation to our directors, employees and consultants, under employee stock purchase plans and under our currently outstanding convertible and exercisable securities.
- We formed a joint venture with BGP, owned 49% by us and 51% by BGP, to design, develop, manufacture and sell land-based seismic data acquisition equipment for the petroleum industry. The name of the joint venture company is INOVA Geophysical Equipment Limited. Under the terms of the joint venture transaction, BGP acquired their interest in the joint venture by paying us aggregate consideration of (i) \$108.5 million in cash and (ii) 49% of certain assets owned by BGP relating to the business of the joint venture.

Statement of Policy for the Review, Approval or Ratification of Transactions with Related Persons

The Board of Directors of ION has established the following policy and procedures to be followed prior to any transaction, arrangement or relationship, or series of similar transactions, arrangements or relationships, including any indebtedness or guarantee of indebtedness, between ION and a Related Party (as defined below) where the aggregate amount involved is expected to exceed \$120,000 in any calendar year ("Related Party Transactions"):

1. *Policy.* The Governance Committee of the Board should review the material facts of any Related Party Transaction and approve or ratify the transaction. In making its determination to approve or ratify, the Governance Committee should consider such factors as (i) the extent of the Related Party's interest in the Related Party Transaction, (ii) if applicable, the availability of other sources of comparable products or services, (iii) whether the terms of the Related Party Transaction are no less favorable than terms

generally available in unaffiliated transactions under like circumstances, (iv) the benefit to ION, and (v) the aggregate value of the Related Party Transaction.

2. *Pre-Approval.* The Governance Committee has reviewed the types of Related Party Transactions described below in “*Standing Pre-Approval for Certain Related Party Transactions*” and determined that each of the Related Party Transactions described therein are deemed to be pre-approved or ratified (as applicable) by the Governance Committee under the terms of this policy. In addition, the Board of Directors has delegated to the Chairman of the Governance Committee the authority to pre-approve or ratify (as applicable) any Related Party Transaction in which the aggregate amount involved is expected to be less than \$1 million.

3. *Related Party.* For purposes of this policy and procedure, “Related Party” means:

a. Any person who is or was an executive officer, director or nominee for election as a director (since the beginning of the last fiscal year); or

b. Any person or group who is a greater-than-5% beneficial owner of ION voting securities; or

c. Any immediate family member of any of the foregoing, which means any child, stepchild, parent, stepparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, sister-in-law, and anyone residing in the home of an executive officer, director or nominee for election as a director (other than a tenant or employee).

4. *No Approval by Related Party.* No director of ION may engage in any Board or Governance Committee approval of any Related Party Transaction in which he or she is a Related Party; *provided, however,* that such director must provide to the Board all material information reasonably requested concerning the Related Party Transaction.

5. *On-Going Transactions.* If a Related Party Transaction is ongoing for a significant period of time beyond the initial approval or ratification, the Governance Committee should periodically review and assess the Related Party Transaction to confirm that the Related Party Transaction remains appropriate.

6. *Existing Transactions.* In conjunction with implementing this policy and procedure, the Governance Committee shall review any existing Related Party Transactions entered into during the last fiscal year and make a determination whether to ratify or rescind such transaction.

7. *Standing Pre-Approval for Certain Related Party Transactions.* The Governance Committee has reviewed the types of Related Party Transactions described below and determined that each of the following types of Related Party Transactions shall be deemed to be pre-approved by the Committee, even if the aggregate amount involved will exceed \$120,000:

a. *Employment of executive officers.* Any employment by ION of an executive officer of ION.

b. *Director compensation.* Any compensation paid to a director in his or her capacity as a director.

c. *Certain transactions with other companies.* Any transaction with another company at which a Related Person’s only relationship is as an employee, director or beneficial owner of less than 10% of that company’s shares, if the aggregate amount involved does not exceed the greater of \$1,000,000 or 2% of that company’s total annual revenues. Also, any transactions involving accounting, software, manufacturing, legal, lease, maintenance and other services with Laitram, L.L.C. as provided in the Continued Services Agreement between ION and Laitram, the Lease of Commercial Property dated February 1, 2006, between Lapeyre Properties L.L.C. (an affiliate of Laitram) and I/O Marine Systems, Inc. or any other agreement or arrangement with Laitram or its affiliates; *provided* that such services are consistent with the general types of services provided by Laitram and its affiliates to ION in the past and *provided further* that the aggregate amount involved does not exceed the greater of \$1,000,000 or 2% of Laitram’s total annual revenues.

d. *Certain ION charitable contributions.* Any charitable contribution, grant or endowment by ION to a charitable organization, foundation or university at which a Related Person's only relationship is as a volunteer, an employee (other than an executive officer) or a director, regent or similar position, if the aggregate amount involved does not exceed the greater of \$100,000 or 2% of the charitable organization's total annual receipts.

e. *Transactions where all shareholders receive proportional benefits.* Any transaction where the Related Person's interest arises solely from the ownership of ION's common stock and all holders of ION's common stock received the same benefit on a pro rata basis (e.g., dividends).

f. *Transactions involving competitive bids.* Any transaction involving a Related Party where the rates or charges involved are determined by competitive bids.

g. *Regulated transactions.* Any transaction with a Related Party involving the rendering of services as a common or contract carrier, or public utility, at rates or charges fixed in conformity with law or governmental authority.

h. *Certain banking-related services.* Any transaction with a Related Party involving services as a bank depository of funds, transfer agent, registrar, trustee under a trust indenture, or similar services.

8. *Code of Ethics.* No approval or ratification of a transaction hereunder shall be deemed to satisfy or supersede the requirements of ION's Code of Ethics applicable to any Related Person and to the extent applicable, any transactions subject to this policy shall also be considered in light of the requirements set forth in that document.

EXECUTIVE OFFICERS

Our current executive officers are as follows:

<u>Name</u>	<u>Age</u>	<u>Position with ION</u>
Robert P. Peebler	62	Chief Executive Officer and Director
R. Brian Hanson	45	Executive Vice President and Chief Financial Officer
Christopher M. Friedemann	45	Senior Vice President, Corporate Marketing
David L. Roland	48	Senior Vice President, General Counsel and Corporate Secretary
Michael L. Morrison	39	Vice President and Corporate Controller

For a description of the business background of Mr. Peebler, see “*Item 1— Election of Directors — Class III Incumbent Directors — Term Expiring In 2011*” above.

Mr. Hanson has been our Executive Vice President and Chief Financial Officer since May 2006. Prior to joining ION, Mr. Hanson served as the Executive Vice President and Chief Financial Officer of Alliance Imaging, Inc., a NYSE-listed provider of diagnostic imaging services to hospitals and other healthcare providers, from July 2004 until November 2005. From 1998 to 2003, Mr. Hanson held a variety of positions at Fisher Scientific International, Inc., a NYSE-listed manufacturer and supplier of scientific and healthcare products and services, including Vice President Finance of the Healthcare group from 1998 to 2002 and Chief Operating Officer from 2002 to 2003. From 1986 until 1998, Mr. Hanson served in various positions with Culligan Water Conditioning, an international manufacturer of water treatment products and producer and retailer of bottled water products, most recently as Vice President of Finance and Chief Financial Officer. Mr. Hanson received a Bachelors degree in engineering from the University of New Brunswick and a Master of Business Administration degree from Concordia University in Montreal.

Mr. Friedemann joined ION in August 2003 as our Vice President — Commercial Development and became our Senior Vice President — Corporate Marketing in January 2007. Mr. Friedemann’s accountabilities encompass corporate marketing, strategic planning and corporate development. Before joining ION, Mr. Friedemann served as the Managing Director of RiverBend Associates, a privately-held management consulting firm based in Texas. Prior to founding RiverBend in January 2002, he served as President of Tradeum, a venture-backed software company that was sold to VerticalNet in April 2000, at which time Mr. Friedemann assumed the role of Managing Director-Europe. Before joining Tradeum in January 2000, Mr. Friedemann was Principal and Partner at the management consulting firm McKinsey & Company. Mr. Friedemann also has experience as a Senior Reservoir Engineer with Exxon, in field operations with Unocal and in energy merchant banking with Bankers Trust. Mr. Friedemann holds a Bachelor of Science degree with Distinction in Petroleum Engineering from Stanford University and a Master of Business Administration degree from Stanford’s Graduate School of Business.

Mr. Roland joined ION as Vice President, General Counsel and Corporate Secretary in April 2004 and became a Senior Vice President in January 2007. Prior to joining ION, Mr. Roland held several positions within the legal department of Enron Corp., a multi-national energy trading and infrastructure development business, most recently as Vice President and Assistant General Counsel. Prior to joining Enron in 1998, Mr. Roland was an attorney with Caltex Corporation, an international oil and gas marketing and refining company. Mr. Roland was an attorney with the law firm of Gardere & Wynne (now Gardere Wynne Sewell LLP) from 1988 until 1994, when he joined Caltex. Mr. Roland holds a Bachelor of Business Administration degree from the University of Houston and a Juris Doctorate degree with Distinction from St. Mary’s University.

Mr. Morrison joined ION in June 2002 as our Assistant Controller, became our Controller and Director of Accounting in November 2002 and Vice President and Corporate Controller in January 2007. Prior to joining ION, Mr. Morrison held several positions at Enron Corp., most recently as Director of Transaction Support. Mr. Morrison had held a variety of positions at Deloitte & Touche, LLP, a public accounting firm, from January 1994 until he joined Enron in June 2000. Mr. Morrison holds a Bachelor of Business Administration degree in Accounting from Texas A&M University.

EXECUTIVE COMPENSATION

Introductory note: The following discussion of executive compensation contains descriptions of various employee benefit plans and employment-related agreements. These descriptions are qualified in their entirety by reference to the full text or detailed descriptions of the plans and agreements, which are filed or incorporated by reference as exhibits to our annual report on Form 10-K for the year ended December 31, 2009. In this discussion, the terms “ION,” “we,” “our” and “us” refer to ION Geophysical Corporation and its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

Compensation Discussion and Analysis

This Compensation Discussion and Analysis provides an overview of the Compensation Committee of our Board of Directors, a discussion of the background and objectives of our compensation programs for our senior executives, and a discussion of all material elements of the compensation of each of the executive officers identified in the following table, whom we refer to as our named executive officers:

<u>Name</u>	<u>Title</u>
Robert P. Peebler	Chief Executive Officer and Director (our principal executive officer)
James R. Hollis	President and Chief Operating Officer (Mr. Hollis’ employment with ION ended on January 29, 2010)
R. Brian Hanson	Executive Vice President and Chief Financial Officer (our principal financial officer)
Christopher M. Friedemann	Senior Vice President, Corporate Marketing
David L. Roland	Senior Vice President, General Counsel and Corporate Secretary

Introduction/Corporate Governance

Compensation Committee

The Compensation Committee of our Board of Directors reviews and approves, or recommends to the Board for approval, all salary and other remuneration for our executive officers and oversees matters relating to our employee compensation and benefit programs. The Committee is composed of the following directors:

Franklin Myers, Chairman
James M. Lapeyre, Jr.
John N. Seitz
Nicholas G. Vlahakis

No member of the Committee is an employee of ION. The Board of Directors has determined that each member of the Committee satisfies the definition of “independent” as established in the NYSE corporate governance listing standards.

The Committee operates pursuant to a written charter that sets forth its functions and responsibilities. A copy of the charter can be viewed on our website at http://www.iongeo.com/content/released/comp_committee_charterionfeb_2008.pdf. The Chairman of the Committee is in charge of the Committee’s meeting agendas and, with the assistance of our Corporate Secretary, establishes the Committee’s meetings and calendar. For a description of the responsibilities of the Compensation Committee, see “Item 1. — Election of Directors — Committees of the Board — Compensation Committee” above.

Compensation Consultants

Each year from 2005 to 2008, the Compensation Committee has retained Towers Perrin as its independent compensation advisor to advise the Committee on our compensation practices and to assist in developing and

implementing our executive compensation program and philosophy. Towers Perrin evaluated our long-term incentive strategy and our stock plans, analyzed our outstanding stock options, restricted stock and other stock-based awards, and provided the Committee with recommendations on our overall long-term incentive strategy and the number of shares to propose to add to our stock plans for future grants to employees and directors, which the Committee and the Board of Directors later approved. In addition, the firm provided the Committee with a summary of changes to disclosure requirements related to executive officer and director compensation. At the request of the Committee, the firm also performed an analysis of competitive compensation levels for our Chief Executive Officer. During 2008, the Governance Committee of our Board retained Hewitt Associates to perform an analysis of prevailing industry compensation levels for our directors. During the first half of 2009, the Compensation Committee engaged Performensation Consulting, an equity compensation consultant, to assist the company and the Compensation Committee in designing a proposed new employee stock purchase plan and a program to permit our current employees to exchange outstanding stock options having exercise prices substantially above the current market price of our common stock, and receive shares of our common stock (the "Replenishment Program"). During the first quarter of 2010, the Compensation Committee engaged ISS Corporate Services, Inc., a wholly-owned subsidiary of RiskMetrics Group, Inc., to provide the company with benchmarking and modeling services related to its proposals to (i) amend ION's 2004 Long-Term Incentive Plan to increase the total number of shares of ION's common stock available for issuance under the plan, and (ii) approve the Purchase Plan.

During 2008 and 2009, none of Towers Perrin, Hewitt Associates, Performensation Consulting or ISS advised our company or our executive officers on matters outside of these engagements by the Board or its committees.

Role of Management in Establishing and Awarding Compensation

On an annual basis, our Chief Executive Officer, with the assistance of our Human Resources department, recommends to the Compensation Committee any proposed increases in base salary, bonus payments and equity awards for our executive officers other than himself. No executive officer is involved in determining his own salary increase, bonus payment or equity award. When making officer compensation recommendations, our Chief Executive Officer takes into consideration compensation benchmarks, which include industry standards for similar sized organizations serving similar markets, as well as comparable positions, the level of inherent importance and risk associated with the position and function, and the executive's job performance over the previous year. See "*— Objectives of Our Executive Compensation Programs — Benchmarking*" and "*— Elements of Compensation — Base Salary*" below.

Our Chief Executive Officer, with the assistance of our Human Resources department and input from our executive officers and other members of senior management, also formulates and proposes to the Compensation Committee an employee bonus incentive plan for the ensuing year. For a description of our process for formulating the employee bonus incentive plan and the factors that we consider, see "*— Elements of Compensation — Annual Incentive Compensation*" below.

The Committee reviews and approves all compensation and awards to executive officers and all bonus incentive plans. With respect to equity compensation awarded to employees other than executive officers, the Compensation Committee reviews and approves all grants of restricted stock and stock options above 5,000 shares, generally based upon the recommendation of the Chief Executive Officer, and has delegated option and restricted stock granting authority to the Chief Executive Officer as permitted under Delaware law for grants to non-executive officers of up to 5,000 shares. Our Chief Executive Officer provides a report to the Compensation Committee of all options and restricted stock awarded by him under this delegated authority.

On its own initiative, at least once a year, the Compensation Committee reviews the performance and compensation of our Chief Executive Officer and, following discussions with the Chief Executive Officer and other members of the Board of Directors, establishes his compensation level. Where it deems appropriate, the Compensation Committee will also consider market compensation information from Towers Perrin or other independent sources. See "*— Objectives of Our Executive Compensation Programs — Benchmarking*" below.

Certain members of our senior management generally attend most meetings of the Compensation Committee, including our Chief Executive Officer, our Senior Vice President — Global Human Resources, and our General Counsel/Corporate Secretary. However, no member of management votes on items before the Compensation Committee. The Compensation Committee and Board of Directors do solicit the views of our Chief Executive Officer on compensation matters, particularly as they relate to the compensation of the other named executive officers and the other members of senior management reporting to the Chief Executive Officer. The Committee often conducts an executive session during each meeting, during which members of management are not present.

Compensation Committee Activity

During 2009, the Compensation Committee met in person or by conference call six times. In two of those meetings, the Committee also met in executive session with no members of management present. In addition to the six meetings mentioned above, the Committee took action by unanimous written consent, as permitted under Delaware law and our Bylaws, two times during 2009, primarily to approve individual non-executive employee grants of restricted stock and stock options. We believe that each of these individual grants made by unanimous written consent of the Committee complied with the applicable grant date requirements under Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic (ASC) 718, “Compensation — Stock Compensation”) (“ASC Topic 718”).

During 2009 and the first quarter of 2010, the Committee took the following actions:

- Reviewed the 2009 and 2010 employee bonus plans submitted by our Chief Executive Officer and approved each plan after making desired revisions.
- Considered and approved employee bonus awards payable under our 2008 and 2009 bonus plans and discretionary bonus awards for certain employees in recognition of their performance during 2008 and 2009.
- Engaged Hewitt Associates for:
 - an analysis of our 2009 long-term incentive strategy, our stock plans and our outstanding stock options, restricted stock and other stock-based awards, and
 - a recommendation on our strategy in 2009 with regards to future grants to employees and directors.
- Engaged Performensation Consulting to assist in designing a new employee stock purchase plan (which we and the Committee decided not to pursue for 2009 but are pursuing for 2010) and the Replenishment Program (which we and the Committee decided not to pursue).
- Approved amendments to our 2004 Long-Term Incentive Plan, as recommended by Towers Perrin in 2010, to increase the number of shares available for grant to employees and directors under the plan and recommended the proposed amendments to our Board to be submitted to our stockholders for approval at our 2010 annual stockholders’ meeting.
- Participated in the Board review of the succession plan for our Chief Executive Officer and other key members of senior management.
- Considered and approved annual base salary increases for individual executive officers and the overall percentage of annual base salary increase applicable to our employees as a whole.
- Considered and approved annual employee stock option and restricted stock awards, including awards for individual executive officers.
- Approved grants of restricted stock, stock options, restricted stock units and stock appreciation rights to various employees.
- Considered and approved, subject to stockholder approval, the Replenishment Program, which would have permitted certain of our current employees to exchange certain outstanding stock options having exercise prices substantially above the current market price of our common stock, and receive shares of

our common stock. After obtaining shareholder approval for the Replenishment Program, we decided not to pursue the program.

- Reviewed and discussed with management this Compensation Discussion and Analysis.
- Engaged ISS Corporate Services, Inc., a wholly-owned subsidiary of RiskMetrics Group, Inc., to provide benchmarking and modeling services related to the company's proposals to amend the 2004 Long-Term Incentive Plan to increase the total number of shares of ION's common stock available for issuance under the plan and approve the Purchase Plan.

Objectives of Our Executive Compensation Programs

General Compensation Philosophy and Policy

Through our compensation programs, we seek to achieve the following general goals:

- attract and retain qualified and productive executive officers and key employees by providing total compensation competitive with that of other executives and key employees employed by companies of similar size, complexity and industry of business;
- encourage our executives and key employees to achieve strong financial and operational performance;
- offer performance-based compensation to create meaningful links between corporate performance, individual performance and financial rewards;
- align the interests of our executives with those of our stockholders by providing a significant portion of total pay in the form of stock-based incentives;
- encourage long-term commitment to our company; and
- limit corporate perquisites to seek to avoid perceptions both within and outside of our company of "soft" compensation.

Our governing principles in establishing executive compensation have been:

Long-Term and At-Risk Focus. Premium compensation opportunities should be composed of long-term, at-risk pay to focus our management on the long-term interests of our company. Base salary, annual incentives and employee benefits should be at competitive levels when compared to similarly-situated companies.

Equity Orientation. Equity-based plans should comprise a major part of the at-risk portion of total compensation to instill ownership thinking and to link compensation to corporate performance and stockholder interests.

Competitive. We emphasize total compensation opportunities consistent on average with our peer group of companies. Competitiveness of annual base pay and annual incentives is independent of stock performance. However, overall competitiveness of total compensation is generally contingent on long-term, stock-based compensation programs.

Focus on Total Compensation. In making decisions with respect to any element of an executive officer's compensation, the Committee obtains information on and considers the total compensation that may be awarded to the executive officer, including salary, annual bonus and long-term incentive compensation. These total compensation reports are prepared by our Human Resources department and present the dollar amount of each component of the named executive officers' compensation, including current cash compensation (base salary, past bonus and eligibility for future bonus), equity awards and other compensation. The overall purpose of these total compensation reports is to bring together, in one place, all of the elements of actual and potential compensation of our named executive officers, as well as information about wealth accumulation, so that the Compensation Committee may analyze both the individual elements of compensation (including the compensation mix) as well as the aggregate total

amount of actual and projected compensation. In its most recent review of total compensation reports, the Committee determined that annual compensation amounts for our Chief Executive Officer and our other named executive officers remained generally consistent with the Committee's expectations. However, the Committee reserves the right to make changes that it believes are warranted.

In April 2009, the Committee approved and the company implemented an employee base salary reduction program, including reductions to base salaries for the named executive officers, to reduce company operating costs during the recent market downturn resulting from the economic recession and decline in oil and gas prices. As a result of the market downturn, our stock price had declined to historic low levels, resulting in our employees holding stock options with exercise prices that greatly exceeded both the current market price of ION common stock and the average market price of our stock over the prior 12 months. The Committee recognized that these underwater options no longer provided the long-term incentive and retention objectives that they were intended to provide. As a result, the Board and the Committee proposed and recommended that the company's stockholders approve the Replenishment Program, which would permit certain of our current employees to exchange certain outstanding stock options having exercise prices substantially above the current market price of our common stock, and receive shares of our common stock. After obtaining shareholder approval for the Replenishment Program, the Board and the Committee decided not to implement the program.

Internal Pay Equity. Our core compensation philosophy is to pay our executive officers competitive levels of compensation that best reflect their individual responsibilities and contributions to our company, while providing incentives to achieve our business and financial objectives. While comparisons to compensation levels at other companies (discussed below) are helpful in assessing the overall competitiveness of our compensation program, we believe that our executive compensation program also must be internally consistent and equitable in order for our company to achieve our corporate objectives. Each year our Human Resources department reports to the Compensation Committee the total compensation paid to our Chief Executive Officer and all other senior executives, which includes a comparison for internal pay equity purposes. Over time there have been variations in the comparative levels of compensation of executive officers and changes in the overall composition of the management team and the overall accountabilities of the individual executive officers; however, we and the Committee are satisfied that total compensation received by executive officers reflects an appropriate differential for executive compensation.

These principles apply to compensation policies for all of our executive officers and key employees. We do not follow the principles in a mechanistic fashion; rather, we apply experience and judgment in determining the appropriate mix of compensation for each individual. This judgment also involves periodic review of discernible measures to determine the progress each individual is making toward agreed-upon goals and objectives.

Benchmarking

When making compensation decisions, we also look at the compensation of our Chief Executive Officer and other executive officers relative to the compensation paid to similarly-situated executives at companies that we consider to be our industry and market peers — a practice often referred to as “benchmarking.” We believe, however, that a benchmark should be just that — a point of reference for measurement — but not the determinative factor for our executives' compensation. The purpose of the comparison is not to supplant the analyses of internal pay equity, total wealth accumulation and the individual performance of the executive officers that we consider when making compensation decisions. Because the comparative compensation information is just one of the several analytic tools that are used in setting executive compensation, the Compensation Committee has discretion in determining the nature and extent of its use. Further, given the limitations associated with comparative pay information for setting individual executive compensation, including the difficulty of assessing and comparing wealth accumulation through equity gains, the Committee may elect to not use the comparative compensation information at all in the course of making compensation decisions.

At least once each year, generally in or around August, our Human Resources department, under the oversight of the Compensation Committee, reviews data from market surveys, independent consultants and other sources to assess our competitive position with respect to base salary, annual incentives and long-term incentive compensation.

As a result of the negative impact on the company's business caused by the worldwide recession that began in late 2008 and existed throughout 2009, annual increases to employee base salaries were not considered during 2009. When reviewing compensation data in 2008, we utilized data primarily from Radford salary surveys, the Mercer Global Planning Report 2009 and the WorldatWork 2007-2008 Salary Budget Survey. The survey information from these three resources covered a broad range of industries and companies. For example, the WorldatWork Salary Budget Survey covered 2,800 participating organizations. When reviewing compensation data in 2006 with regard to the compensation of our Chief Executive Officer, the Compensation Committee engaged Towers Perrin to perform a marketplace compensation analysis. In the study, the firm presented data to the Committee from the Towers Perrin 2005 Energy Industry Incentive Survey, the Mercer Human Resource Consulting 2005 Energy Compensation Survey and a proxy compensation analysis for the Chief Executive Officer position among a group of ten industry peer companies. These industry peer companies were:

Global Industries Ltd.	OYO Geospace Corp.
Horizon Offshore Inc.	TETRA Technologies Inc.
Cal Dive International Inc.	Veritas DGC Inc.
Intergraph Corp.	Grant Prideco Inc.
Oceaneering International Inc.	Oil States International Inc.

When determining compensation for Mr. Hollis when he was promoted to President and Chief Operating Officer in December 2008, we utilized data primarily from the Oilfield Manufacturing & Services Industry (OFMS) Executive Survey and executive surveys from Radford, Mercer and Towers Perrin. The OFMS survey compiles survey results and/or proxy compensation data from the following oilfield services companies:

Baker Hughes Incorporated	Hydril Company LP
Bristow Group Inc.	ION Geophysical Corporation
Complete Production Services, Inc.	National Oilwell Varco, Inc.
Cameron International Corporation	Newpark Resources, Inc.
Core Laboratories	Oil States International Inc.
ENSCO, Inc.	Pride International, Inc.
FMC Technologies, Inc.	Rowan Companies, Inc.
GlobalSantaFe (now Transocean Inc.)	Smith International, Inc.
Gulfmark Offshore, Inc.	TIW Corporation
Halliburton Company	VetcoGray
Hanover Compressor (now Exterran)	Warren Equipment Company

The overall results of the Towers Perrin analysis (with regard to Chief Executive Officer compensation) and the consulting firm surveys (with regard to compensation for all other levels within our company) provide the starting point for our compensation analysis. We believe that the surveys and the Towers Perrin analysis contain relevant compensation information from companies that are representative of the sector in which we operate, have relative size as measured by market capitalization, and experience relative complexity in the business and the executives' roles and responsibilities.

Beyond the report and survey numbers, we look extensively at a number of other factors, including our estimates of the compensation at our most comparable competitors and other companies that were closest to our company in size, profitability and complexity. We also consider an individual's current performance, the level of corporate responsibility, and the employee's skills and experience, collectively, in making compensation decisions.

In the case of our Chief Executive Officer and some of our other executive officers, we also consider our company's performance during the person's tenure, and the anticipated level of difficulty of replacing the person with someone of comparable experience and skill. When we hired R. Brian Hanson as our new Executive Vice President/Chief Financial Officer in May 2006, for example, we based our total compensation

ranges for the position primarily on our direct experience and observations regarding competitive compensation packages for candidates possessing requisite levels of senior executive-level financial management experience, expertise and achievement.

In addition to our periodic review of compensation, we also regularly monitor market conditions and will adjust compensation levels from time to time as necessary to remain competitive and retain our most valuable employees. When we experience a significant level of competition for retaining current employees or hiring new employees, we will typically reevaluate our compensation levels within that employee group in order to ensure our competitiveness.

Elements of Compensation

The primary components of our compensation are:

- base salary;
- performance-based annual incentive compensation; and
- long-term equity-based incentive compensation, such as stock options, restricted stock, restricted stock units and stock appreciation rights.

Below is a summary of each component:

Base Salary

General. The general purpose of base salary for our executive officers is to create a base of cash compensation for the officer that is consistent on average with the range of base salaries for executives in similar positions and with similar responsibilities at comparable companies. In addition to salary norms for persons in comparable positions at comparable companies, base salary amounts may also reflect the nature and scope of responsibility of the position, the expertise of the individual employee and the competitiveness of the market for the employee's services. Base salaries of executives other than our Chief Executive Officer may also reflect our Chief Executive Officer's evaluation of the individual executive officer's job performance. As a result, the base salary level for each individual may be above or below the target market value for the position. The Compensation Committee also recognizes that the Chief Executive Officer's compensation should reflect the greater policy- and decision-making authority that he holds and the higher level of responsibility he has with respect to our strategic direction and our financial and operating results. At December 31, 2009, our Chief Executive Officer's annual base salary was 33% higher than the annual base salary for the next highest-paid executive officer. In addition, minimum base salaries for certain of our executive officers are determined by employment agreements with these officers.

Base salary is designed to provide an income level that is comparable to the income of executives in similar positions and with similar responsibilities at comparable companies. The base salaries for our executives reflect levels that we have concluded were appropriate based upon our general experience and market data. We do not intend for base salaries to be the vehicle for long-term capital and value accumulation for our executives.

2008 and 2009 Actions. In typical years, base salaries are reviewed at least annually and may also be adjusted from time to time to realign salaries with market levels after taking into account individual responsibilities and changes in responsibilities, performance and contribution to ION, experience, impact on total compensation, relationship of compensation to other ION officers and employees, and changes in market levels. Salary increases for executive officers do not follow a preset schedule or formula but do take into account changes in the market and individual circumstances. In 2008, base salary levels were reviewed and adjusted during August and September.

Commencing in late 2008, our business experienced a significant decline, due in large part to the global recession and the decline in oil and gas prices, as well as other factors that have negatively impacted demand for our products and services and thus adversely affected our financial results. We took a number of actions to

reduce costs in our businesses and seek to improve our operating performance. In late 2008 we decided to defer any future base salary increases for employees until at least 2010. Then, in April 2009, we implemented a base salary reduction program in a further effort to reduce our operating costs. Under the salary reduction program, base salaries for employees were reduced by certain percentages ranging from a 12% reduction in base salary for our Chief Executive Officer, Chief Financial Officer and Chief Operating Officer, a 10% reduction for other executives and management and a 5% reduction for most other employees. The program remained in effect until October 2009, when management and the Board determined that developments and outlook for our business had improved to the extent that the program should end.

Below is a summary of actions taken during 2008 and 2009 with respect to base salaries of our named executive officers:

Named Executive Officer

Action

Robert P. Peebler

During 2008, CEO compensation surveys from Radford and Towers Perrin indicated that the 50th percentile for CEO base salary for the companies with revenues less than \$1 billion included in these surveys was an average of \$620,000. Based on the results of the reports, and in recognition of our performance to date and Mr. Peebler's unique experience, expertise, and capabilities, in September 2008 the Compensation Committee increased Mr. Peebler's annual base salary from \$525,000 to \$575,000. Under the base salary reduction program in effect from April 2009 to October 2009, Mr. Peebler's annual base salary was reduced from \$575,000 to \$506,000.

James R. Hollis

During 2008, COO compensation surveys from Radford and Towers Perrin indicated that the 50th percentile for COO base salary for the companies with revenues less than \$1 billion included in these surveys was \$332,550. Based on the results of the reports, in September 2008 the Compensation Committee increased Mr. Hollis' annual base salary as the Executive Vice President and COO of ION Solutions from \$300,000 to \$327,000. In December 2008, in connection with Mr. Hollis' promotion to President and COO of our company, the Compensation Committee reviewed President/COO compensation data from Towers Perrin, Radford, the OFMS Executive Survey and Mercer indicating that the 50th percentile for President/COO base salary for the companies included in these surveys was \$385,642, and increased Mr. Hollis' annual base salary from \$327,000 to \$385,000. Under the base salary reduction program in effect from April 2009 to October 2009, Mr. Hollis' annual base salary was reduced from \$385,000 to \$338,800.

R. Brian Hanson

During 2008, CFO compensation surveys from Radford indicated that the 50th percentile for CFO base salary for the companies with revenues less than \$1 billion included in these surveys was \$335,076. Based on the results of the reports, in September 2008 the Compensation Committee increased Mr. Hanson's annual base salary from \$300,000 to \$327,000. Under the base salary reduction program in effect from April 2009 to October 2009, Mr. Hanson's annual base salary was reduced from \$327,000 to \$287,760.

Named Executive Officer

Action

Christopher M. Friedemann During 2008, compensation surveys from Radford and Towers Perrin indicated that the 50th percentile for senior marketing executive base salary for the companies with revenues less than \$1 billion included in these surveys was \$230,500. Based on the results of the reports and in recognition of Mr. Friedemann's performance, expertise, and capabilities, in September 2008 the Compensation Committee increased Mr. Friedemann's annual base salary from \$245,000 to \$262,150. Under the base salary reduction program in effect from April 2009 to October 2009, Mr. Friedemann's annual base salary was reduced from \$262,150 to \$235,935.

David L. Roland During 2008, compensation surveys from Radford and Towers Perrin indicated that the 50th percentile for top legal/executive base salary for the companies with revenues less than \$1 billion included in these surveys averaged \$282,668. Based on the results of the reports and in recognition of Mr. Roland's performance, expertise, and capabilities, in September 2008 the Compensation Committee increased Mr. Roland's annual base salary from \$250,000 to \$270,000. Under the base salary reduction program in effect from April 2009 to October 2009, Mr. Roland's annual base salary was reduced from \$270,000 to \$243,000.

Annual Incentive Compensation

Our employee annual bonus incentive plan is intended to promote the achievement each year of company performance objectives and performance objectives of the employee's particular business unit, and to recognize those employees who contributed to the company's achievements. The plan provides cash compensation that is at-risk on an annual basis and is contingent on achievement of annual business and operating objectives and individual performance. The plan provides all participating employees the opportunity to share in the company's performance through the achievement of established financial and individual objectives. The financial and individual objectives within the plan are intended to measure an increase in the value of our company and, in turn, our stock.

In recent years, we have adopted an annual incentive plan with regard to each year. Performance under the annual incentive plan is measured with respect to the designated plan fiscal year. Payments under the plan are paid in cash in an amount reviewed and approved by the Compensation Committee and are ordinarily made in a single installment in the first quarter following the completion of a fiscal year, after the financial results for that year have been determined.

Our annual incentive plan is usually consistent with our operating plan for the same year. In late 2008, we prepared a consolidated company operating budget for 2009 and individual operating budgets for each operating unit. The budgets took into consideration market opportunities, customer and sale opportunities, technology enhancements for new products, product manufacturing and delivery schedules and other operating factors. The Board of Directors analyzed the proposed budgets with management extensively and, after analysis and consideration, the Board approved the consolidated 2009 operating plan. In early 2009, the Board approved several subsequent changes in the 2009 operating plan to reflect the rapidly declining global market conditions and global financial markets that existed during late 2008 and throughout 2009. During late 2008 and early 2009, our Chief Executive Officer worked with our Human Resources department and members of senior management to formulate our 2009 incentive plan, consistent with the 2009 operating plans approved by the Board.

At the beginning of 2009, the Compensation Committee approved our 2009 annual incentive plan for executives and designated non-executive key employees. The computation of awards generated under the plan is required to be approved by the Committee. In February 2010, the Committee reviewed the company's actual

performance against each of the plan performance goals established at the beginning of the year and evaluated each individual's performance during the preceding year. The results of operations of the company for that year and individual performance evaluations determined the appropriate payout under the annual incentive plan.

The Compensation Committee has discretion in circumstances it determines are appropriate to authorize discretionary incentive compensation awards that might exceed amounts that would otherwise be payable under the terms of the incentive plan. These discretionary awards can be payable in cash, stock options, restricted stock, restricted stock units, stock appreciation rights or a combination thereof. Any stock options, restricted stock or restricted stock units awarded would be granted under one of our existing long-term equity incentive plans. Any stock appreciation rights awarded would be granted under our Stock Appreciation Rights Plan. The Committee also has the discretion, in appropriate circumstances, to grant a lesser incentive award, or no incentive award at all, under the incentive plan. The Committee intends to review our annual incentive compensation program annually to ensure that the key elements of the program continue to meet the objectives described above.

Below is a general description of our 2009 incentive plan and a general summary of the company performance criteria applicable to the plan, as well as our variable payment plan we adopted in 2009.

2009 Incentive Plan

The purpose of the 2009 incentive plan was to:

- provide an incentive for our participating employees to achieve their highest level of individual and team performance in order to accomplish our company's 2009 strategic and financial goals, and
- reward the employees for those achievements and accomplishments.

Designated employees, including our named executive officers, were eligible to participate in our 2009 incentive plan. The 2009 incentive plan was designed to equate the size of the incentive award to the performance of the individual participant and the performance of our company as a whole. Every participating named executive officer had the opportunity to earn an incentive payment based on their performance against criteria as defined by our Chief Executive Officer, and achievement of our company's performance against designated consolidated financial objectives. Award determinations for the named executive officers under the plan were also based on evaluations of employee performance by our Chief Executive Officer. Under the 2009 incentive plan, 25% of the funds allocated for distribution were available to award to eligible employees regardless of the company's 2009 financial performance, and 75% of the funds were available for distribution to eligible employees only to the extent the company satisfied the designated 2009 financial performance criteria. As a result, the amount of total dollars available for distribution under the incentive plan was largely dependent on the company's achievement of the pre-defined financial objectives.

As reported in the chart below, our 2009 incentive plan established a 2009 target consolidated Adjusted EBITDA (net income before net interest expense, taxes, depreciation and amortization and other factors) performance goal. Prior to approval of the 2009 incentive plan, management and the Committee concluded that, in the depressed industry and economic environment prevalent in late 2008 and throughout 2009, it was important for the company to encourage achievement of cash flow and Adjusted EBITDA. As a result, the Committee approved performance criteria based on Adjusted EBITDA for 2009 bonus awards to the named executive officers and other covered employees under our 2009 incentive plan. Under the plan, every participating named executive officer other than our Chief Executive Officer had the opportunity to earn up to 100% of his or her base salary depending on performance of our company against the designated performance goal and performance of the executive against personal criteria determined at the beginning of 2009 by our Chief Executive Officer. Under separate terms approved by the Compensation Committee and contained in his employment agreement, our Chief Executive Officer participated in the plan with potential to earn a target incentive payment of 75% of his base salary, depending on achievement of the company's target consolidated performance goal and pre-designated personal critical success factors, and a maximum of 150% of his base

salary upon achievement of the maximum consolidated performance goal and the personal critical success factors.

Performance Criteria. In 2009, the Compensation Committee approved the following corporate consolidated Adjusted EBITDA performance criteria for consideration of bonus awards to the named executive officers and other covered employees under the 2009 incentive plan (the calculation of Adjusted EBITDA excluded one-time and special non-operating charges):

<u>Threshold Adjusted EBITDA</u>	<u>Target Adjusted EBITDA</u>	<u>Maximum Adjusted EBITDA</u>
\$113.9 million	\$142.4 million	\$190.8 million

Where an employee is primarily involved in a particular business unit, the financial performance criteria under our incentive plan are heavily weighted toward the operational performance of the employee's business unit rather than consolidated company performance. All of our named executive officers have broader corporate responsibility; as a result, their performance goals are heavily weighted toward the consolidated performance of the company as a whole.

During 2009, on a consolidated basis, excluding the impact of certain special non-recurring items, we achieved consolidated Adjusted EBITDA of \$72.2 million. Because on a consolidated basis we did not achieve our threshold or target financial objectives in 2009, the named executive officers and many other eligible executives and employees generally received either no bonus payments, or only reduced bonus payments, pursuant to the incentive plan. In cases where the Committee decided to award discretionary bonus payments for 2009, the Committee took into consideration our company's overall performance and the leadership and personal commitment exhibited by the company's management team against one of the worst national and global economic downturns in the post-war era. The Committee took into consideration not only the company's ability to weather the downturn effectively but to make changes and accomplish initiatives critical to positioning the company for future long-term growth. Our 2009 Summary Compensation Table below reflects the payments that our named executive officers received under our 2009 incentive plan. Because the company's data processing business unit exceeded its 2009 financial objectives under the plan, employees primarily involved in that business unit generally received larger bonus payments than employees in other business units.

In April 2010, the Compensation Committee approved our 2010 annual incentive plan. The general structure of our 2010 annual incentive plan is similar to our 2009 incentive plan but will focus on achievement of operating income rather than Adjusted EBITDA. The particular performance goals designated under our 2010 plan reflect our confidential strategic plans, and cannot be disclosed at this time because it would provide our competitors with confidential information regarding our market and segment outlook and strategies. We are currently unable to determine how difficult it will be for our company to meet the designated performance goals under our 2010 plan. Generally, the Committee attempts to establish the threshold, target and maximum levels such that the relative difficulty of achieving each level is approximately consistent from year to year.

2009 Variable Payment Plan

As described above, the global recession and decline in oil and gas prices resulted in a significant decline in our business during late 2008 and through 2009 and, as a result, in April 2009 we implemented a base salary reduction program in an effort to reduce our operating costs. Under the salary reduction program, base salaries for most employees were reduced by certain percentages, depending on the level of the employee. The salary reduction program remained in effect until October 2009, when management and the Board determined that our financial prospects warranted the end of the program.

In April 2009, the Compensation Committee approved the 2009 Variable Payment Plan (the "Variable Plan"). All persons who were employed, either full-time or part-time, by us on the Variable Plan effective date were eligible to participate in the plan, including all executive officers. Under the Variable Plan, upon our company achieving a predetermined level of consolidated Adjusted EBITDA (net income before net interest expense, taxes, depreciation and amortization and other factors) during 2009 and management and the

Compensation Committee's determination that the company has sufficient levels of liquidity to make the plan payments, participating employees could receive a plan payment equal to an amount of up to 110% of the aggregate sum resulting from subtracting (a) the respective employee's reduced base salary amount per pay period received by the employee during the period from the Variable Plan's effective date to December 31, 2009, from (b) the employee's base salary amount per pay period immediately before the Variable Plan's effective date. If an eligible participating employee did not receive a full 110% payment under the Variable Plan, the employee would receive a supplemental allotment of extra vacation days equal in value to the plan shortfall. The company did not achieve the predetermined level of consolidated Adjusted EBITDA during 2009 under the Variable Plan, so eligible participating employees will not receive a payment under the plan and instead will receive a supplemental allotment of extra vacation days in accordance with the plan. The Variable Plan was in effect only with regard to 2009 and will not remain in effect for 2010 or any other years.

Long-Term Stock-Based Incentive Compensation

We have structured our long-term incentive compensation to provide for an appropriate balance between rewarding performance and encouraging employee retention and stock ownership. There is no pre-established policy or target for the allocation between either cash or non-cash or short-term and long-term incentive compensation; however, long-term incentives comprise a large portion of the total compensation package for executive officers and key employees. As reflected in our 2009 Summary Compensation Table below, the long-term incentives received by each of our named executive officers as a percentage of their respective total compensation during 2009 were as follows: Mr. Peebler — 48%; Mr. Hanson — 53%; Mr. Hollis — 30%; Mr. Friedemann — 27% and Mr. Roland — 46%.

For 2009, there were three forms of long-term incentives utilized for executive officers and key employees: stock options, restricted stock, and restricted stock units. For 2010, we have again recommended that stock options, restricted stock and restricted stock units be the only forms of long-term equity-based incentives to be utilized for executive officers and key employees. Our long-term incentive plans have provided the principal method for our executive officers to acquire equity or equity-linked interests in our company.

Of the total stock option or restricted stock employee awards made by ION during 2009, 59% were in the form of stock options and 41% were in the form of restricted stock or restricted stock units.

Stock Options. Under our equity plans, stock options may be granted having exercise prices equal to either the closing price of our stock on the date before the date of grant or the average of the high and low sale prices of our stock on the date of grant, depending on the terms of the particular stock option plan that governs the award. In any event, all awards of stock options are made at or above the market price at the time of the award. The Compensation Committee will not grant stock options having exercise prices below the market price of our stock on the date of grant, and will not reduce the exercise price of stock options (except in connection with adjustments to reflect recapitalizations, stock or extraordinary dividends, stock splits, mergers, spin-offs and similar events, as required by the relevant plan) without the consent of our stockholders. Our stock options generally vest ratably over four years, based on continued employment. Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to such option, including voting rights and the right to receive dividends or dividend equivalents. New option grants normally have a term of ten years.

The purpose of stock options is to provide equity compensation with value that has been traditionally treated as entirely at-risk, based on the increase in our stock price and the creation of stockholder value. Stock options also allow our executive officers and key employees to have equity ownership and to share in the appreciation of the value of our stock, thereby aligning their compensation directly with increases in stockholder value. Stock options only have value to their holder if the stock price appreciates in value from the date options are granted.

Stock option award decisions are generally based on past business and individual performance. In determining the number of options to be awarded, we also consider the grant recipient's qualitative and quantitative performance, the size of stock option and other stock based awards in the past, and expectations

of the grant recipient's future performance. In 2009, a total of 81 employees received option awards, covering 635,750 shares of common stock. In 2009, the named executive officers received option awards for a total of 40,000 shares, or approximately 6% of the total options awarded in 2009.

Restricted Stock and Restricted Stock Units. We use restricted stock and restricted stock units to focus executives on our long-term performance and to help align their compensation more directly with stockholder value. Vesting of restricted stock and restricted stock units typically occurs ratably over three years, based solely on continued employment of the recipient-employee. In 2009, 84 employees received restricted stock or restricted stock unit awards, covering an aggregate of 438,874 shares of restricted stock and shares underlying restricted stock units. The named executive officers received awards totaling 281,424 shares of restricted stock in 2009, or approximately 64% of the total shares of restricted stock awarded in 2009.

Awards of restricted stock units have been made to certain of our foreign employees in lieu of awards of restricted stock. Restricted stock units provide certain tax benefits to our foreign employees as the result of foreign law considerations, so we expect to continue to award restricted stock units to certain foreign employees for the foreseeable future.

Stock Appreciation Rights. In 2008, we awarded cash-settled stock appreciation rights to Mr. Hollis and Mr. Hanson as a special grant in lieu of grants of stock options to provide further emphasis on our long-term performance and to further align their compensation more directly with stockholder value. Vesting of all of the stock appreciation rights awarded to Messrs. Hollis and Hanson occurs after three years, based solely on their continued employment. During 2008, we also awarded stock appreciation rights to our former Executive Vice President & Chief Operating Officer — ION Systems who left the company in December 2008, in connection with his severance package and his agreement to provide consulting services to the company after his termination of employment. No stock appreciation rights were awarded in 2009.

The Compensation Committee intends to review both the annual incentive compensation program and the long-term incentive program annually to ensure that their key elements continue to meet the objectives described above.

Approval and Granting Process. As described above, the Compensation Committee reviews and approves all stock option, restricted stock, restricted stock unit and stock appreciation right awards made to executive officers, regardless of amount. With respect to equity compensation awarded to employees other than executive officers, the Committee reviews and approves all grants of restricted stock, stock options and restricted stock units above 5,000 shares, generally based upon the recommendation of our Chief Executive Officer. Committee approval is required for any grant to be made to an executive officer in any amount. The Committee has granted to our Chief Executive Officer the authority to approve grants to any employee other than an executive officer of (i) up to 5,000 shares of restricted stock and (ii) stock options for not more than 5,000 shares. Our Chief Executive Officer is also required to provide a report to the Committee of all awards of options and restricted stock made by him under this authority. We believe that this policy is beneficial because it enables smaller grants to be made more efficiently. This flexibility is particularly important with respect to attracting and hiring new employees, given the increasingly competitive market for talented and experienced technical and other personnel in locales in which our employees work.

All grants of restricted stock, restricted stock units, stock options and stock appreciation rights to employees or directors are granted on one of four designated quarterly grant dates during the year: March 1, June 1, September 1 or December 1. The Compensation Committee approved these four dates because they are not close to any dates that would normally be anticipated to contain earnings announcements or other announcements of material events. For an award to a current employee, the grant date for the award is the first designated quarterly grant date that occurs after approval of the award. For an award to a newly hired employee who is not yet employed by us at the time the award is approved, the grant date for the award is the first designated quarterly grant date that occurs after the new employee commences work. We believe that this process of fixed quarterly grant dates is beneficial because it serves to remove any perception that the grant date for an award could be capable of manipulation or change for the benefit of the recipient. In addition, having all grants occur on a maximum of four days during the year simplifies certain fair value accounting calculations related to the grants, thereby minimizing the administrative burden associated with tracking and

calculating the fair values, vesting schedules and tax-related events upon vesting of restricted stock and also lessening the opportunity for inadvertent calculation errors.

With the exception of significant promotions, new hires or unusual circumstances, we generally make most awards of equity compensation on December 1 of each year. This date was selected because (i) it enables us to consider individual performance eleven months into the year, (ii) it simplifies the annual budget process by having the expense resulting from the equity award occur late in the year, (iii) the date is approximately three months before the date that we normally pay any annual incentive bonuses and (iv) generally speaking, December 1 is not close to any dates that would normally be anticipated to contain earnings announcements or other announcements of material events.

We do not have in effect any policies regarding the adjustment or recovery of awards or payments made by us in the event that any relevant performance measures of our company on which the awards or payments may be based, are subsequently restated or otherwise adjusted in a manner that would reduce the size of the award or payment.

Personal Benefits, Perquisites and Employee Benefits

When analyzing the total compensation received by our Chief Executive Officer and other executives, the Compensation Committee also considers whether the executives should be provided additional compensation in the form of perquisites through the availability of benefits that are convenient for the executives to use when faced with the demands of their positions. Our executives have concluded that most perquisites traditionally offered to executives of similarly-sized companies are unnecessary for our company. As a result, benefits, perquisites and any other similar personal benefits offered to executive officers are substantially the same as those offered to our general salaried employee population. These benefits include access to medical and dental insurance, life insurance, disability insurance, vision plan, charitable gift matching (up to designated limits), 401(k) plan, flexible spending accounts for healthcare and dependent care and other customary employee benefits. We have in the past provided all employees with a company match of certain levels of 401(k) contributions; however, as part of our cost-cutting measures taken as a result of the economic recession and decline in oil and gas prices, in April 2009, we temporarily discontinued the company match for all employees, including executive officers. Business-related relocation benefits are generally reimbursed but are individually negotiated when they occur. We intend to continue applying our general policy of not providing specific personal benefits and perquisites to our executives; however, we may, in our discretion, revise or add to any executive's personal benefits and perquisites if we deem it advisable.

Risk Management Considerations

The Committee believes that our company's performance-based bonus and equity programs create incentives to create long-term shareholder value. The Committee has discussed the concept of risk as it relates to the company's compensation programs, and the Committee has concluded that the company's compensation programs do not encourage excessive or inappropriate risk-taking. Several elements of the compensation programs are designed to promote the creation of long-term value and thereby discourage behavior that leads to excessive risk:

- The compensation programs consist of both fixed and variable compensation. The fixed (or salary) portion is designed to provide a steady income regardless of the company's stock price performance so that executives do not focus exclusively on stock price performance to the detriment of other important business metrics. The variable (cash bonus and equity) portions of compensation are designed to reward both short- and long-term corporate performance. The Committee believes that the variable elements of compensation are a sufficient percentage of overall compensation to motivate executives to produce superior short- and long-term corporate results, while the fixed element is also sufficiently high that the executives are not encouraged to take unnecessary or excessive risks in doing so.
- The financial metrics used to determine the amount of an executive's bonus are measures the Committee believes drive long-term shareholder value and, in today's difficult market environment, ensure the continued viability of the company. Moreover, the Committee attempts to set ranges for

these measures that encourage success without encouraging excessive risk taking to achieve short-term results. In addition, the overall maximum bonus for each participating named executive officer other than our Chief Executive Officer is not expected to exceed 100% of the executive's base salary under the bonus plan and the overall bonus for our Chief Executive Officer, under his employment agreement, will not exceed 150% of his base salary under the bonus plan, in each case no matter how much the company's financial performance exceeds the ranges established at the beginning of the year.

- We have strict internal controls over the measurement and calculation of the financial metrics that determine the amount of an executive's bonus, designed to keep it from being susceptible to manipulation by an employee, including our executives.
- Stock options generally become exercisable over a four-year period and remain exercisable for up to ten years from the date of grant, encouraging executives to look to long-term appreciation in equity values.
- Restricted stock generally becomes exercisable over a three-year period, again encouraging executives to look to long-term appreciation in equity values.
- Senior executives, including our named executive officers, are required to acquire over time and hold shares of our company's stock having a value of between one and four times the executive's annual base salary, depending on the level of the executive. The Committee believes that the stock ownership guidelines provide a considerable incentive for management to consider the company's long-term interests, since a portion of their personal investment portfolio consists of company stock.
- We do not permit any of our executive officers or directors to enter into any derivative or hedging transactions on our stock, including short sales, market options, equity swaps and similar instruments, thereby preventing executives from insulating themselves from the effects of poor company stock price performance.

Indemnification of Directors and Executive Officers

Our Bylaws require us to indemnify our directors and employees (including our executive officers) in connection with any legal action brought against them by reason of the fact that they are or were a director, officer, employee or agent of our company, to the full extent permitted by law. Our Bylaws also provide, however, that no such obligation to indemnify exists as to proceedings initiated by an employee or director against us or our directors unless (a) it is a proceeding (or part thereof) initiated to enforce a right to indemnification or (b) was authorized or consented to by our Board of Directors.

In 2002, we also entered into indemnity agreements with certain of our outside directors that provide for us to indemnify the director in connection with any proceeding in which the director is involved by reason of the fact that the director is or was a director of the company. In order to be indemnified under these agreements, the director must have acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the company and, in the case of a criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

As discussed below, we have also entered into employment agreements with certain of our executive officers that provide for us to indemnify the executive to the fullest extent permitted by our Certificate of Incorporation and Bylaws. The agreements also provide that we will provide the executive with coverage under our directors' and officers' liability insurance policies to the same extent as provided to our other executives.

Stock Ownership Requirements; Hedging Policy

We believe that broad-based stock ownership by our employees (including our executive officers) enhances our ability to deliver superior stockholder returns by increasing the alignment between the interests of our employees and our stockholders. Accordingly, the Board has adopted stock ownership requirements applicable to each of our senior executives, including our named executive officers. The policy requires each

executive to retain direct ownership of at least 50% of all shares of our company's stock received upon exercise of stock options and vesting of awards of restricted stock or restricted stock units until the executive owns shares with an aggregate value equal to the following multiples of the executive's annual base salary:

President and Chief Executive Officer — 4x
Executive Vice President — 2x
Senior Vice President — 1x

In recommending these requirements to the Board for adoption, the Governance Committee considered our historical grant practices, historical retention practices for senior executives, and value of current holdings by our senior executives, and concluded that this policy would meet our desired objectives. As of the date of this proxy statement, all of our senior executives were in compliance with the stock ownership requirements.

We do not permit any of our executive officers or directors to enter into any derivative or hedging transactions on our stock, including short sales, market options, equity swaps and similar instruments.

Impact of Regulatory Requirements on Compensation

The financial reporting and income tax consequences to our company of individual compensation elements are important considerations for the Compensation Committee when it is analyzing the overall level of compensation and the mix of compensation among individual elements. Under Section 162(m) of the Internal Revenue Code and the related federal treasury regulations, we may not deduct annual compensation in excess of \$1 million paid to certain employees — generally our Chief Executive Officer and our four other most highly compensated executive officers — unless that compensation qualifies as “performance-based” compensation. Overall, the Committee seeks to balance its objective of ensuring an effective compensation package for the executive officers with the need to maximize the immediate deductibility of compensation — while ensuring an appropriate (and transparent) impact on reported earnings and other closely followed financial measures.

In making its compensation decisions, the Committee has considered the limit of deductibility within the requirements of Internal Revenue Code Section 162(m) and its related Treasury regulations. As a result, the Committee has designed much of the total compensation packages for the executive officers to qualify for the exemption of “performance-based” compensation from the deductibility limit. However, the Committee does have the discretion to design and use compensation elements that may not be deductible within the limitations under Section 162(m), if the Committee considers the tax consequences and determines that those elements are in our best interests. To maintain flexibility in compensating executive officers in a manner designed to promote varying corporate goals, we have not adopted a policy that all compensation must be deductible.

Certain payments to our named executive officers under our 2009 annual incentive plan may not qualify as performance-based compensation under Section 162(m) because the awards are calculated and paid in a manner that may not meet the requirements under Section 162(m) and the related Treasury regulations. Given the rapid changes in our business during 2009 and those that we foresee for the remainder of 2010, we believe that we are better served in implementing a plan that provided for adjustments and discretionary elements for our senior executives' incentive compensation for 2009 and 2010, rather than ensure that we implement all of the requirements and limitations under Section 162(m) into these incentive plans.

For accounting purposes, we apply the guidance in ASC Topic 718 to record compensation expense for our equity-based compensation grants. ASC Topic 718 is used to develop the assumptions necessary and the model appropriate to value the awards as well as the timing of the expense recognition over the requisite service period, generally the vesting period, of the award.

Executive officers will generally recognize ordinary taxable income from stock option awards when a vested option is exercised. We generally receive a corresponding tax deduction for compensation expense in the year of exercise. The amount included in the executive officer's wages and the amount we may deduct is equal to the common stock price when the stock options are exercised less the exercise price, multiplied by the number of stock options exercised. We do not pay or reimburse any executive officer for any taxes due

upon exercise of a stock option. We have not historically issued any tax-qualified incentive stock options under Section 422 of the Internal Revenue Code.

Executives will generally recognize taxable ordinary income with respect to their shares of restricted stock at the time the restrictions lapse (unless the recipient elects to accelerate recognition as of the date of grant). Restricted stock unit awards are generally subject to ordinary income tax at the time of payment or issuance of unrestricted shares of stock. We are generally entitled to a corresponding federal income tax deduction at the same time the executive recognizes ordinary income.

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis included in this proxy statement with management of ION. Based on such review and discussions, the Compensation Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement and incorporated into ION's annual report on Form 10-K for the year ended December 31, 2009.

Franklin Myers, Chairman
James M. Lapeyre, Jr.
John N. Seitz
Nicholas G. Vlahakis

SUMMARY COMPENSATION TABLE

The following table summarizes the compensation paid to or earned by, during the fiscal year ended December 31, 2009, our named executive officers, which are our Chief Executive Officer, Chief Financial Officer and three other most highly compensated executive officers at December 31, 2009:

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	All Other Compensation (\$)	Total (\$)
Robert P. Peebler	2009	559,961	—	582,974	—	75,000	3,317	1,221,252
Chief Executive Officer and Director	2008	536,539	—	417,931	349,200	110,000	3,207	1,416,877
	2007	505,769	—	946,197	—	500,000	3,423	1,955,389
James R. Hollis	2009	374,931	—	163,200	—	—	3,554	541,685
President and Chief Operating Officer	2008	308,462	—	60,000	194,000	80,000	6,654	649,116
	2007	279,038	—	231,450	382,500	135,000	6,643	1,034,631
R. Brian Hanson	2009	318,447	—	408,000	—	40,000	2,601	769,048
Executive Vice President and Chief Financial Officer	2008	306,231	—	45,000	135,800	80,000	7,750	574,781
	2007	288,462	—	231,450	459,000	210,000	7,750	1,196,662
Christopher M. Friedemann	2009	258,118	—	54,400	52,485	25,000	2,404	392,407
Senior Vice President, Corporate Marketing	2008	248,958	—	30,000	77,600	50,000	4,145	410,703
David L. Roland	2009	265,847	—	163,200	87,475	30,000	2,492	549,014
Senior Vice President, General Counsel and Corporate Secretary								

Discussion of Summary Compensation Table

Stock Awards Column. All of the amounts in the “Stock Awards” column reflect the grant-date fair value of awards of restricted stock during the fiscal year (excluding any impact of assumed forfeiture rates) under our 2000 Restricted Stock Plan, 2004 Long-Term Incentive Plan, and April 2005 Inducement Equity Program. While unvested, a holder of restricted stock is entitled to the same voting and dividend rights as all other holders of common stock. In each case, unless stated otherwise below, the awards of shares of restricted stock vest in one-third increments each year, over a three-year period. In addition to the grants and awards in 2009 described in the “2009 Grants of Plan-Based Awards” table below:

- Pursuant to his employment agreement, Mr. Peebler received:
 - an award of 32,560 shares of restricted stock on March 1, 2007, which is equal to \$435,000 (the amount of cash incentive plan compensation that Mr. Peebler earned for fiscal 2006) divided by \$13.36, which was the average of the closing sales price per share on the NYSE of our shares of common stock for the last ten business days of 2006. The shares of restricted stock vested on March 1, 2009.
 - an award of 37,425 shares of restricted stock on March 1, 2007, which is equal to the amount of Mr. Peebler’s annual base salary as of March 1, 2007, divided by \$13.36. The shares of restricted stock vested on March 1, 2010.
 - an award of 31,447 shares of restricted stock on March 1, 2008, which is equal to \$500,000 (the amount of cash incentive plan compensation that Mr. Peebler earned for fiscal 2007) divided by \$15.90, which was the average of the closing sales price per share on the NYSE of our shares of common stock for the last ten business days of 2007. The shares of restricted stock vested on March 1, 2010. See “Employment Agreements — Robert P. Peebler” below.
- Mr. Hollis received an award of 15,000 shares of restricted stock in December 2007 and 20,000 shares of restricted stock in December 2008. Mr. Hollis’ employment with ION ended on January 29, 2010. As a result of the termination of his employment, 48,333 shares of restricted stock held by Mr. Hollis were forfeited on January 29, 2010.

- Mr. Hanson received an award of 15,000 shares of restricted stock in December 2007 and 15,000 shares of restricted stock in December 2008.
- Mr. Friedemann received an award of 10,000 shares of restricted stock in December 2008.

Option Awards Column. All of the amounts shown in the “Option Awards” column reflect stock options and cash-settled stock appreciation rights (“SARs”) granted under our 2000 Long-Term Incentive Plan, 2003 Stock Option Plan, 2004 Long-Term Incentive Plan and April 2005 Inducement Equity Program and our Stock Appreciation Rights Plan, respectively. In each case, unless stated otherwise below, the options vest 25% each year over a four-year period and the SARs will vest on December 1, 2011. The values contained in the Summary Compensation Table are based on the grant date fair value of all awards (excluding any impact of assumed forfeiture rates). All of the exercise prices for the options and SARs equal or exceed the fair market value per share of ION common stock on the date of grant. In addition to the grants and awards in 2009 described in the “2009 Grants of Plan-Based Awards” table below:

- In December 2008, Mr. Peebler was granted an award of options to purchase 180,000 shares of our common stock for an exercise price of \$3.00 per share.
- In December 2007, Mr. Hollis was granted an award of options to purchase 50,000 shares of our common stock for an exercise price of \$15.43 per share; and in December, 2008, he was granted options to purchase 100,000 shares at \$3.00 per share and 200,000 cash-settled SARs having an exercise price of \$3.00 per SAR. Mr. Hollis’ employment with ION ended on January 29, 2010. As a result of the termination of his employment, unvested options to purchase 121,250 shares of our common stock held by Mr. Hollis and 200,000 unvested stock appreciation rights held by Mr. Hollis were each forfeited on January 29, 2010.
- In December 2007, Mr. Hanson was granted an award of options to purchase 15,000 shares of our common stock for an exercise price of \$15.43 per share; and in December 2008, he was granted options to purchase 70,000 shares at \$3.00 per share and 140,000 cash-settled SARs having an exercise price of \$3.00 per SAR.
- In December 2008, Mr. Friedemann was granted an award of options to purchase 40,000 shares of our common stock for an exercise price of \$3.00 per share.

All payments of non-equity incentive plan compensation reported for 2009 were made in March 2010 with regard to the 2009 fiscal year and were paid pursuant to our 2009 incentive plan.

We do not sponsor for our employees (i) any defined benefit or actuarial pension plans (including supplemental plans), (ii) any non-tax-qualified deferred compensation plans or arrangements or (iii) any nonqualified defined contribution plans.

Our general policy is that our executive officers do not receive any executive “perquisites,” or any other similar personal benefits that are different from what our salaried employees are entitled to receive. ION provides the named executive officers with certain group life, health, medical and other non-cash benefits generally available to all salaried employees, which are not included in the “All Other Compensation” column in the Summary Compensation Table pursuant to SEC rules. Except as noted below, the amounts shown in the “All Other Compensation” column consist of employer matching contributions to ION’s 401(k) plan. In 2009, the 401(k) accounts for each of the named executive officers received the following matching contributions from the company: \$3,317 for Mr. Peebler; \$3,554 for Mr. Hollis; \$2,601 for Mr. Hanson; \$2,404 for Mr. Friedemann; and \$2,492 for Mr. Roland.

2009 GRANTS OF PLAN-BASED AWARDS

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)(2)			All Other Stock Awards: Number of Shares of Stock or Units (#)(3)	All Other Option Awards: Number of Securities Underlying Options (#)(4)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards \$(5)
		Threshold (\$)	Target (\$)	Maximum (\$)				
Robert P. Peebler(6)	—	—	431,250	862,500	—	—	—	—
	3/1/09	—	—	—	36,424	—	—	38,974
	12/1/09	—	—	—	100,000	—	—	544,000
James R. Hollis(7)	—	48,125	192,500	385,000	—	—	—	—
	12/1/09	—	—	—	30,000	—	—	163,200
R. Brian Hanson	—	40,875	163,500	327,000	—	—	—	—
	12/1/09	—	—	—	75,000	—	—	408,000
Christopher M. Friedemann	—	32,769	131,075	262,150	—	—	—	—
	12/1/09	—	—	—	10,000	15,000	5.44	106,885
David L. Roland	—	32,769	131,075	262,150	—	—	—	—
	12/1/09	—	—	—	30,000	25,000	5.44	250,675

- (1) Reflects the estimated threshold, target and maximum award amounts for grants under our 2009 incentive plan to our named executive officers. Under the plan, every participating executive other than our Chief Executive Officer had the opportunity to earn a maximum of 100% of his or her base salary depending on performance of the company against the designated performance goal, and performance of the executive against personal performance criteria. Under separate terms approved by the Compensation Committee and contained in his employment agreement, Mr. Peebler, as our Chief Executive Officer, participated in the plan with potential to earn a target incentive payment of 75% of his base salary, depending on achievement of the company's target consolidated performance goal and pre-designated personal critical success factors, and a maximum of 150% of his base salary upon achievement of the maximum consolidated performance goal and the personal critical success factors. Mr. Peebler's employment agreement does not specify that he will earn a bonus upon achievement of a threshold consolidated performance goal. Because award determinations under the plan were based in part on outcomes of personal evaluations of employee performance by our Chief Executive Officer and the Compensation Committee, the computation of actual awards generated under the plan upon achievement of threshold and target company performance criteria differed from the above estimates. See "*— Compensation Discussion and Analysis — Elements of Compensation — Annual Incentive Compensation*" above. For actual payout amounts to our named executive officers under our 2009 incentive plan, see "*— Summary Compensation Table*" above.
- (2) Our company does not offer or sponsor any "equity incentive plans" (as that term is defined in Item 402(a) of Regulation S-K) for employees.
- (3) All stock awards reflect the number of shares of restricted stock granted under our 2004 Long-Term Incentive Plan. While unvested, a holder of restricted stock is entitled to the same voting rights as all other holders of common stock. In each case, unless stated otherwise below, the awards of shares of restricted stock vest in one-third increments each year, over a three-year period.
- (4) All amounts reflect awards of stock options granted under our 2004 Long-Term Incentive Plan. In each case, unless stated otherwise below, the options vest 25% each year over a four-year period. All of the exercise prices for the options reflected in the above chart equal or exceed the fair market value per share of ION common stock on the date of grant (on November 30, 2009, the last completed trading day prior to the December 1, 2009 grant date, the closing price per share on the NYSE was \$5.44).
- (5) The values contained in the table are based on the grant date fair value of the award computed in accordance with FAS 123R for financial statement reporting purposes, but exclude any impact of assumed forfeiture rates.
- (6) Pursuant to his employment agreement, on March 1, 2009, Mr. Peebler received an award of 36,424 shares of restricted stock, which is equal to \$110,000 (the amount of cash incentive plan compensation that Mr. Peebler earned for fiscal 2008) divided by \$3.02, which was the average of the closing sales price per share on the NYSE of our shares of common stock for the last ten business days of 2008. The shares of

restricted stock will vest on March 1, 2011. See “— *Employment Agreements — Robert P. Peebler*” below.

- (7) Mr. Hollis’ employment with ION ended on January 29, 2010. As a result of the termination of his employment, unvested options to purchase 121,250 shares of our common stock held by Mr. Hollis, 200,000 unvested stock appreciation rights held by Mr. Hollis, and 48,333 shares of restricted stock held by Mr. Hollis were each forfeited on January 29, 2010.

Employment Agreements

We enter into employment agreements with senior officers, including some of the named executive officers, when the Compensation Committee determines that an employment agreement is desirable for us to obtain a measure of assurance as to the executive’s continued employment in light of prevailing market competition for the particular position held by the executive officer, or where the Committee determines that an employment agreement is necessary and appropriate to attract an executive in light of market conditions, the prior experience of the executive or practices at ION with respect to other similarly situated employees. As of December 31, 2009, the only executives with employment agreements were Mr. Peebler, Mr. Hanson, Mr. Hollis and Mr. Roland. Mr. Hollis’ employment agreement terminated (other than the noncompete and nonsolicitation obligations, which by their terms survive the termination of his agreement) when his employment with the company ended on January 29, 2010.

The following discussion describes the material terms of the employment agreements with Messrs. Peebler, Hanson and Roland:

Robert P. Peebler

Our employment agreement with Mr. Peebler, dated March 31, 2003, provides that Mr. Peebler will serve as President and Chief Executive Officer for a five-year term, unless sooner terminated. We amended Mr. Peebler’s employment agreement in September 2006, February 2007, August 2007 and January 2009, to extend the term to December 31, 2011, and to make certain other changes. This description reflects Mr. Peebler’s employment agreement as so amended, except where the context requires otherwise.

Under the agreement, Mr. Peebler is entitled to an annual base salary of at least \$500,000, and to participate in all of our employee benefit plans available to senior executives at a level commensurate with his position. Mr. Peebler’s annual base salary is currently \$575,000.

Mr. Peebler was not guaranteed an annual bonus under his original 2003 employment agreement, but his 2006 amendment provides that Mr. Peebler will be eligible to participate in our annual incentive plan for 2006 and each full year thereafter, with target incentive plan bonus at 75% of his base salary and with maximum incentive plan bonus at 150% of his base salary. His annual bonus will be earned upon achievement of our consolidated operating income performance targets applicable to the senior leadership bonus plan for the relevant year, and Mr. Peebler’s critical success factors as determined in advance by the Compensation Committee.

Under his employment agreement, Mr. Peebler received a grant in 2003 of an option to purchase 1,325,000 shares of our common stock at \$6.00 per share, which exercise price exceeded the market price of our shares on the date of grant by 60% (at March 31, 2003, the date of his grant, the closing sales price per share of our common stock on the NYSE was \$3.60). Mr. Peebler’s amended employment agreement provides that he is entitled to receive (a) in 2007, an award of shares of restricted common stock based on the amount of the annual incentive plan bonus earned by him for 2006, vesting on the date that is the second anniversary of the date of the award; (b) in 2007, an award of shares of restricted common stock equivalent in value to his annual base salary, vesting on the date that is the third anniversary of the date of the award; and (c) in years following 2007 through the end of the term of his agreement, an award of shares of restricted common stock based on the amount of the annual incentive plan bonus, if any, earned by Mr. Peebler for the preceding year, vesting on the date that is the second anniversary of the date of the award, and additional stock options as may be determined by the Compensation Committee. The shares of restricted common stock will be subject to

restrictions on disposition and, during the period that the shares of restricted common stock are unvested, Mr. Peebler will be entitled to the same voting and dividend rights as all other holders of common stock.

We may at any time terminate our employment agreement with Mr. Peebler for “cause” if Mr. Peebler (i) willfully and continuously fails to substantially perform his obligations, (ii) willfully engages in conduct materially and demonstrably injurious to our property or business (including fraud, misappropriation of funds or other property, other willful misconduct, gross negligence or conviction of a felony or any crime involving moral turpitude) or (iii) commits a material breach of the agreement. In addition, we may at any time terminate the agreement if Mr. Peebler suffers permanent and total disability for a period of at least 180 consecutive days, or if Mr. Peebler dies. Mr. Peebler may terminate his employment agreement for “good reason” if we breach any material provision of the agreement, we assign to Mr. Peebler any duties materially inconsistent with his position, we remove him from his current office, materially reduce his duties, functions, responsibilities or authority, or take other action that results in a diminution in his office, position, duties, functions, responsibilities or authority, or we relocate his workplace by more than 30 miles.

In his agreement, Mr. Peebler agrees not to compete against us, assist any competitor, attempt to solicit any of our suppliers or customers, or solicit any of our employees, in any case during his employment and for a period of two years after his employment ends. The employment agreement also contains provisions relating to protection of our confidential information and intellectual property. We also agreed to indemnify Mr. Peebler to the fullest extent permitted by our Certificate of Incorporation and Bylaws, and to provide him coverage under our directors’ and officers’ liability insurance policies to the same extent as our other executives.

For a discussion of the provisions of Mr. Peebler’s employment agreement regarding compensation to Mr. Peebler in the event of our change of control or his termination by us without cause or by him for good reason, see “— *Potential Payments Upon Termination or Change of Control — Robert P. Peebler*” below.

R. Brian Hanson

Our employment agreement with Mr. Hanson became effective in May 2006. We amended Mr. Hanson’s employment agreement in August 2007 and in December 2008. This description reflects Mr. Hanson’s employment agreement as so amended.

The agreement provides for Mr. Hanson to serve as our Executive Vice President and Chief Financial Officer for an initial term of three years, with automatic two-year renewals thereafter. Any change of control of our company will cause the remaining term of Mr. Hanson’s employment agreement to automatically adjust to two years, commencing on the effective date of the change of control.

The agreement provides for Mr. Hanson to receive an initial base salary of \$275,000 per year and be eligible to receive an annual performance bonus under our incentive compensation plan, with target plan incentive at 50% of his annual base salary and an opportunity to earn up to 100% of his annual base salary. Mr. Hanson’s annual base salary is currently \$327,000.

Under the agreement, in May 2006 Mr. Hanson was granted 75,000 shares of restricted common stock and options to purchase 75,000 shares of our common stock. The agreement also provides that Mr. Hanson is entitled to receive (a) in 2010, an award of shares of restricted common stock based on the amount of the annual incentive plan bonus earned by him for 2009; and (b) in years following 2010 through the end of the term of his agreement, an award of shares of restricted common stock based on the amount of the annual incentive plan bonus, if any, earned by Mr. Hanson with respect to the preceding year. The shares of restricted common stock will be subject to restrictions on disposition and will vest on the date that is the third anniversary date of the date of the award. During the period that the shares of restricted common stock are unvested, Mr. Hanson will be entitled to the same voting and dividend rights as all other holders of common stock. In the agreement, we also agreed to indemnify Mr. Hanson to the fullest extent permitted by our Certificate of Incorporation and Bylaws, and to provide him coverage under our directors’ and officers’ liability insurance policies to the same extent as other company executives.

For a discussion of the provisions of Mr. Hanson's employment agreement regarding compensation to Mr. Hanson in the event of our change of control or his termination by us without cause or by him for good reason, see "*— Potential Payments Upon Termination or Change of Control — R. Brian Hanson*" below.

David L. Roland

Our employment agreement with Mr. Roland provides for Mr. Roland to serve as our Vice President, General Counsel and Corporate Secretary for an initial term of two years, with automatic one-year renewals thereafter. He will also be eligible to receive an annual performance bonus under our incentive compensation plan, with his target incentive compensation to be set at 50% of his annual base salary, and an opportunity under the plan to earn incentive compensation in an amount of up to 100% of his annual base salary. In the agreement, we also agreed to indemnify Mr. Roland to the fullest extent permitted by our Certificate of Incorporation and Bylaws, and to provide him coverage under our directors' and officers' liability insurance policies to the same extent as other company executives.

For a discussion of the provisions of Mr. Roland's employment agreement regarding compensation to him in the event of his termination without cause or for good reason, see "*— Potential Payments Upon Termination or Change of Control — David L. Roland*" below.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The following table sets forth information concerning unexercised stock options (including SARs) and shares of restricted stock held by our named executive officers at December 31, 2009:

Name	Option Awards(1)					Stock Awards(2)			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)(3)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
Robert P. Peebler	1,325,000	—	—	6.00	3/31/2013	205,296	1,215,352	—	—
	45,000	135,000		3.00	12/01/2018				
James R. Hollis(4) . . .	50,000	—	—	4.90	8/04/2013	48,333	286,131	—	—
	10,000	—		3.80	11/24/2013				
	40,000	—		9.84	9/01/2014				
	15,000	—		7.31	8/02/2015				
	11,250	3,750		10.17	5/09/2016				
	33,750	11,250		9.97	9/01/2016				
	18,750	6,250		10.89	12/01/2016				
	25,000	25,000		15.43	12/01/2017				
	25,000	75,000		3.00	12/01/2018				
	—	200,000(5)		3.00	12/01/2018				
R. Brian Hanson	56,250	18,750	—	8.73	5/22/2016	90,000	532,800	—	—
	15,000	5,000		9.97	9/01/2016				
	30,000	30,000		15.43	12/01/2017				
	—	140,000(5)		3.00	12/01/2018				
Christopher M. Friedemann	85,000	—	—	4.90	08/03/2013	19,999	118,394	—	—
	60,000	—		9.84	09/01/2014				
	40,000	—		7.31	08/03/2015				
	30,000	10,000		9.97	09/01/2016				
	20,000	20,000		15.43	12/01/2017				
	30,000	10,000		3.00	12/01/2018				
	—	15,000		5.44	12/01/2019				
David L. Roland	15,000	—	—	9.84	09/01/2014	39,999	236,794	—	—
	25,000	—		7.31	08/03/2015				
	22,500	7,500		9.97	09/01/2016				
	15,000	15,000		15.43	12/01/2017				
	7,500	22,500		3.00	12/01/2018				
	—	25,000		5.44	12/01/2019				

- (1) All stock option information in this table relates to nonqualified stock options granted under our various stock plans and employment inducement programs. All of the options in this table, except for the options to purchase 1,325,000 shares held by Mr. Peebler, vest 25% each year over a four-year period. On March 31, 2003, under the terms of his employment agreement, Mr. Peebler received a one-time grant of options to purchase 1,325,000 shares of our common stock at \$6.00 per share, which options vested in equal amounts monthly over a 3-year period commencing March 31, 2004. On March 31, 2003, the closing sale price per share of our common stock on the NYSE was \$3.60. See “— *Employment Agreements — Robert P. Peebler*” above.
- (2) The amounts shown represent shares of restricted stock granted under our 2000 Restricted Stock Plan or 2004 Long-Term Incentive Plan. While unvested, the holder is entitled to the same voting rights as all other holders of common stock. Except for certain shares of restricted stock held by Mr. Peebler, in each case the grants of shares of restricted stock vest in one-third increments each year, over a three-year

period. On March 1, 2007, Mr. Peebler received (a) an award of 37,425 shares of restricted stock, all of which shares vested on March 1, 2010. On March 1, 2008, Mr. Peebler received an award of 31,447 shares of restricted stock, all of which shares vested on March 1, 2010. On March 1, 2009, Mr. Peebler received an award of 36,424 shares of restricted stock, all of which shares will vest on March 1, 2011. See “*Employment Agreements — Robert P. Peebler*” above.

- (3) Pursuant to SEC rules, the market value of each executive’s shares of unvested restricted stock was calculated by multiplying the number of shares by \$5.92 (the closing price per share of our common stock on the NYSE on December 31, 2009).
- (4) Mr. Hollis’ employment with ION ended on January 29, 2010. As a result of the termination of his employment, on January 29, 2010 Mr. Hollis forfeited all of his SARs, 48,333 shares of restricted stock and unvested options to purchase 121,250 shares of common stock.
- (5) The amounts shown reflect awards of cash-settled SARs granted on December 1, 2008 under our Stock Appreciation Rights Plan. The SARs awarded to Mr. Hollis were forfeited on January 29, 2010. Mr. Hanson’s SARs will vest on December 1, 2011. See “— *Summary Compensation Table — Discussion of Summary Compensation Table*” above.

2009 OPTION EXERCISES AND STOCK VESTED

The following table sets forth certain information with respect to option and stock exercises by the named executive officers during the year ended December 31, 2009:

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting \$(1)
Robert P. Peebler(2)	—	—	32,560	34,839
R. Brian Hanson(3)	—	—	35,000	127,600
James R. Hollis(4)	—	—	21,666	104,248
Christopher M. Friedemann(5)	—	—	10,000	46,834
David L. Roland(6)	—	—	9,333	45,147

- (1) The values realized upon vesting of stock awards contained in the table are based on the market value of ION common stock on the date of vesting.
- (2) The value realized by Mr. Peebler on the vesting of his restricted stock awards was calculated by multiplying 32,560 shares by \$1.07 (the closing price per share of our common stock on the NYSE on February 27, 2009, the last completed trading date before his March 1, 2009 vesting date).
- (3) The value realized by Mr. Hanson on the vesting of his restricted stock awards was calculated by multiplying (a) 25,000 shares by \$2.80 (the closing price per share of our common stock on the NYSE on his May 22, 2009 vesting date) and (b) 10,000 shares by \$5.76 (the closing price per share of our common stock on the NYSE on his December 1, 2009 vesting date).
- (4) The value realized by Mr. Hollis on the vesting of his restricted stock awards was calculated by multiplying (a) 1,666 shares by \$3.12 (the closing price per share of our common stock on the NYSE on May 8, 2009, the last completed trading date before his May 9, 2009 vesting date), (b) 5,000 shares by \$2.53 (the closing price per share of our common stock on the NYSE on his September 1, 2009 vesting date) and (c) 15,000 shares by 5.76 (the closing price per share of our common stock on the NYSE on his December 1, 2009 vesting date).
- (5) The value realized by Mr. Friedemann on the vesting of his restricted stock awards was calculated by multiplying 3,333 shares by \$2.53 (the closing price per share of our common stock on the NYSE on his September 1, 2009 vesting date) and (b) 6,667 shares by \$5.76 (the closing price per share of our common stock on the NYSE on his December 1, 2009 vesting date).
- (6) The value realized by Mr. Roland on the vesting of his restricted stock awards was calculated by multiplying 2,666 shares by \$2.53 (the closing price per share of our common stock on the NYSE on his September 1, 2009 vesting date) and (b) 6,667 shares by \$5.76 (the closing price per share of our common stock on the NYSE on his December 1, 2009 vesting date).

Potential Payments Upon Termination or Change of Control

Under the terms of our equity-based compensation plans and our employment agreements, our Chief Executive Officer and certain of our other named executive officers are entitled to payments and benefits upon the occurrence of specified events including termination of employment (with and without cause) and upon a change in control of our company. The specific terms of these arrangements, as well as an estimate of the compensation that would have been payable had they been triggered as of December 31, 2009, are described in detail below. In the case of each employment agreement, the terms of these arrangements were established through the course of arms-length negotiations with each executive officer, both at the time of hire and at the times of any later amendment. As part of these negotiations, the Compensation Committee analyzed the terms of the same or similar arrangements for comparable executives employed by companies in our industry group. This approach was used by the Committee in setting the amounts payable and the triggering events under the arrangements. The termination of employment provisions of the employment agreements were entered into in order to address competitive concerns by providing those individuals with a fixed amount of compensation that would offset the potential risk of leaving their prior employer or foregoing other opportunities in order to join our company. At the time of entering into these arrangements, the Committee considered the aggregate potential obligations of our company in the context of the desirability of hiring the individual and the expected compensation upon joining us. However, these contractual severance and post-termination arrangements have not affected the decisions the Committee has made regarding other compensation elements and the rationale for compensation decisions made in connection with these arrangements.

The following summaries set forth estimated potential payments payable to our named executive officers (other than Mr. Hollis, whose employment terminated on January 29, 2010) upon termination of employment or a change of control of our company under their current employment agreements and our stock plans and other compensation programs as if his employment had so terminated for these reasons, or the change of control had so occurred, on December 31, 2009. The Compensation Committee may, in its discretion, agree to revise, amend or add to the benefits if it deems advisable. For purposes of the following summaries, dollar amounts are estimates based on annual base salary as of December 31, 2009, benefits paid to the named executive officer in fiscal 2009 and stock and option holdings of the named executive officer as of December 31, 2009. The summaries assume a price per share of ION common stock of \$5.92 per share, which was the closing price per share on December 31, 2009, as reported on the NYSE. The actual amounts to be paid to the named executive officers can only be determined at the time of each executive's separation from the company.

The amounts of potential future payments and benefits as set forth in the tables below, and the descriptions of the assumptions upon which such future payments and benefits are based and derived, may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are estimates of payments and benefits to certain of our executives upon their termination of employment or a change in control, and actual payments and benefits may vary materially from these estimates. Actual amounts can only be determined at the time of such executive's actual separation from our company or the time of such change in control event. Factors that could affect these amounts and assumptions include the timing during the year of any such event, the company's stock price, unforeseen future changes in our company's benefits and compensation methodology and the age of the executive.

Robert P. Peebler

Termination and Change of Control. Mr. Peebler is entitled to certain benefits under his employment agreement upon any of the following events:

- we terminate his employment other than for cause, death or disability;
- Mr. Peebler resigns for "good reason"; or

- Mr. Peebler resigns after remaining with us or with our successor for a period of 18 months following a change of control involving our company (as defined in his agreement).

In the above scenarios, Mr. Peebler would be entitled to receive the following (less applicable withholding taxes and subject to compliance with his two-year non-compete, non-solicit and no-hire obligations):

- a lump sum cash amount equal to 0.99 times his annual base salary;
- over a two-year period, a cash amount equal to two times his annual base salary; and
- all incentive plan bonuses then due to him under the terms of the relevant incentive compensation plan in effect for any previous year and a prorated portion of the target incentive plan bonus that he would have been eligible to receive under any incentive compensation plan in effect with respect to the current year.

We believe the above 18-month change-of-control benefit maximizes stockholder value because it motivates Mr. Peebler to remain in his position for a sufficient period of time following a change of control to ensure a smoother integration and transition for the new owners. Given his unique and high levels of experience and expertise in the seismic industry, we believe Mr. Peebler's severance structure is in our best interest because it ensures that for a two-year period after leaving our employment, Mr. Peebler will not be in a position to compete with us or otherwise adversely affect our business. Mr. Peebler's severance provisions are more generous than those of the other named executive officers and reflect the greater interest we have in protecting against any future competition from Mr. Peebler after his employment with us, and also the greater opportunity costs that he would bear if we decided to change our chief executive officer.

Upon a "change of control" involving ION (as that term is defined in his employment agreement and the applicable stock plans), all of Mr. Peebler's stock options and restricted stock will automatically accelerate and become fully vested. Upon any of the above events, we would not be required to provide any medical continuation or death or disability benefits for Mr. Peebler that are not also available to our other employees as required by law or the applicable benefit plan.

Death or Disability. Upon his death or disability, any options or restricted stock Mr. Peebler holds under our 2004 Long-Term Incentive Plan would automatically accelerate and become fully vested. As of December 31, 2009, Mr. Peebler held 205,296 shares of restricted stock granted under our 2004 Long-Term Incentive Plan.

Termination by Us for Cause or by Mr. Peebler Other Than for Good Reason. Upon his termination or resignation for any other reason, Mr. Peebler is not entitled to any payment or benefit other than the payment of unpaid salary and accrued and unused vacation pay.

Mr. Peebler's vested stock options will remain exercisable after his termination of employment, death, disability or retirement for periods of between 180 days and one year following such event, depending on the event and the terms of the applicable stock plan and grant agreement.

In addition, any voluntary termination of employment on or after December 31, 2010, will be treated for all purposes under our 2004 Long-Term Incentive Plan as a termination due to the retirement of Mr. Peebler, thereby causing all of his unvested stock options and restricted stock granted under that plan to automatically accelerate and become fully vested.

If any payment or benefit under his employment agreement is determined to be subject to the excise tax for "excess parachute payments" under U.S. federal income tax rules, we have agreed to pay to Mr. Peebler an additional amount to adjust for the incremental tax costs of those payments to him.

Assuming Mr. Peebler’s employment was terminated under each of these circumstances or a change of control occurred on December 31, 2009, his payments and benefits would have an estimated value as follows (less applicable withholding taxes):

<u>Scenario</u>	<u>Cash Severance (\$)(1)</u>	<u>Bonus (\$)</u>	<u>Tax Gross-Ups (\$)</u>	<u>Value of Accelerated Equity Awards \$(2)</u>
Without Cause or For Good Reason	1,719,250	431,250	—	—
Resign 18 months after change of control	1,719,250	431,250	—	—
Change of Control (regardless of termination)	—	—	—	1,609,552
Death or Disability	—	—	—	1,609,552
Voluntary Termination	—	—	—	1,609,552

- (1) \$569,250 would be payable immediately and \$1,150,000 would be payable over a two-year period. In addition to the listed amounts, if Mr. Peebler resigns or his employment is terminated for any reason, he would be entitled to be paid for his unused vacation days. Mr. Peebler is currently entitled to 20 vacation days per year. The above table assumes that there is no earned but unpaid base salary as of the time of termination.
- (2) As of December 31, 2009, Mr. Peebler held 205,296 shares of unvested restricted stock and unvested options to purchase 135,000 shares of our common stock. The value of accelerated unvested options was calculated by multiplying 135,000 shares underlying Mr. Peebler’s unvested options by \$5.92 (the closing price per share on December 31, 2009) and then deducting the \$3.00 exercise price for those shares. The value of accelerated unvested restricted stock was calculated by multiplying 205,296 shares by \$5.92.

R. Brian Hanson

Termination and Change of Control. Mr. Hanson is entitled to certain benefits under his employment agreement upon any of the following events:

- we terminate his employment other than for cause, death or disability;
- Mr. Hanson resigns for “good reason”; or
- Mr. Hanson resigns after remaining with us or with our successor for a period of 12 months following a change of control involving our company.

In the above scenarios, Mr. Hanson would be entitled to receive the following (less applicable withholding taxes and subject to compliance with non-compete, non-solicit and no-hire obligations):

- over a two-year period, a cash amount equal to two times his annual base salary;
- all incentive plan bonuses then due to him under the terms of the relevant incentive compensation plan in effect for any previous year and a prorated portion of the target incentive plan bonus that he would have been eligible to receive under any incentive compensation plan in effect with respect to the current year; and
- continuation of insurance coverage for Mr. Hanson as of the date of his termination for a period of one year at the same cost to him as prior to the termination.

We believe the above 12-month change-of-control benefit maximizes stockholder value because it motivates Mr. Hanson to remain in his position for a sufficient period of time following a change of control to ensure a smoother integration and transition for the new owners.

Upon a “change of control” involving ION (as that term is defined in his employment agreement and the applicable stock plans), all of Mr. Hanson’s stock options, restricted stock and SARs will automatically accelerate and become fully vested. In addition, any change of control of our company will cause the

remaining term of Mr. Hanson's employment agreement to automatically adjust to two years, commencing on the effective date of the change of control.

Death, Disability or Retirement. Upon his death, disability or retirement, all options, restricted stock and SARs that Mr. Hanson holds would automatically accelerate and become fully vested.

Termination by Us for Cause or by Mr. Hanson Other Than for Good Reason. Upon any termination by us for cause or any resignation by Mr. Hanson for any reason other than "good reason" (as defined in his employment agreement), Mr. Hanson is not entitled to any payment or benefit other than the payment of unpaid salary and accrued and unused vacation pay.

Mr. Hanson's vested stock options and SARs will remain exercisable after his termination of employment, death, disability or retirement for periods of between 180 days and one year following such event, depending on the event and the terms of the applicable plan and grant agreement. If Mr. Hanson is terminated for cause, all of his vested and unvested stock options, unvested restricted stock and unvested SARs will be immediately forfeited.

If any payment or benefit under his employment agreement is determined to be subject to the excise tax for "excess parachute payments" under U.S. federal income tax rules, we have agreed to pay to Mr. Hanson an additional amount to adjust for the incremental tax costs of those payments to him.

Assuming Mr. Hanson's employment was terminated under each of these circumstances or a change of control occurred on December 31, 2009, his payments and benefits would have an estimated value as follows (less applicable withholding taxes):

<u>Scenario</u>	<u>Cash Severance (\$)(1)</u>	<u>Bonus (\$)(2)</u>	<u>Insurance Continuation (\$)(3)</u>	<u>Tax Gross-Ups (\$)</u>	<u>Value of Accelerated Equity Awards (\$)(4)</u>
Without Cause or For Good Reason	654,000	163,500	14,499	—	—
Resign 12 months after change of control	654,000	163,500	14,499	—	—
Change of Control (regardless of termination) or Death, Disability or Retirement . . .	—	—	—	—	1,057,200
Voluntary Termination	—	—	—	—	—

(1) Payable over a two-year period. In addition to the listed amounts, if Mr. Hanson resigns or his employment is terminated for any reason, he would be entitled to be paid for his unused vacation days. Mr. Hanson is currently entitled to 20 vacation days per year. The above table assumes that there is no earned but unpaid base salary as of the time of termination.

(2) Represents an estimate of the target bonus payment Mr. Hanson would be entitled to receive pursuant to our 2009 incentive plan. The actual bonus payment he would be entitled to receive upon his termination may be different from the estimated amount, depending on the achievement of payment criteria under the bonus plan.

(3) The value of insurance continuation contained in the above table is the total cost of COBRA continuation coverage for Mr. Hanson, maintaining his same levels of medical, dental and other insurance in effect as of December 31, 2009, less the amount of premiums to be paid by Mr. Hanson for such coverage.

(4) As of December 31, 2009, Mr. Hanson held 75,000 unvested shares of restricted stock, unvested stock options to purchase 106,250 shares of common stock and 140,000 SARs. The value of accelerated unvested options was calculated by multiplying 75,000 shares underlying Mr. Hanson's unvested options by \$5.92 (the closing price per share on December 31, 2009) and then deducting the aggregate exercise price for those shares (equal to \$3.00 per share for 70,000 options). Options having an exercise price greater than \$5.92 were calculated with a zero value. The value of accelerated unvested restricted stock was calculated by multiplying 75,000 shares by \$5.92. The value of accelerated unvested SARs was calculated by multiplying 140,000 shares by \$5.92 and then deducting the settlement price of \$3.00.

Christopher M. Friedemann

Mr. Friedemann is not entitled to receive any contractual severance if we terminate his employment without cause. Upon a change of control involving our company, all of his unvested stock options and restricted stock will automatically accelerate and become fully vested. Upon his retirement, death or disability, all unvested options and restricted stock he holds will automatically accelerate and become fully vested.

The vested stock options held by Mr. Friedemann will remain exercisable after his termination of employment, death, disability or retirement for periods of between 180 days and one year following such event, depending on the event and the terms of the applicable stock plan and grant agreement. If Mr. Friedemann is terminated for cause, all of his vested and unvested stock options and unvested restricted stock will be immediately forfeited.

Assuming his employment was terminated under each of these circumstances or a change of control occurred on December 31, 2009, his payments and benefits would have an estimated value as follows (less applicable withholding taxes):

<u>Scenario</u>	<u>Cash Severance (\$)(1)</u>	<u>Value of Accelerated Equity Awards (\$)(2)</u>
Without Cause	—	—
Change of Control (regardless of termination) or Death, Disability or Retirement	—	235,194
Voluntary Termination	—	—

- (1) In addition to the listed amounts, if Mr. Friedemann resigns or his employment is terminated for any reason, he would be entitled to be paid for his unused vacation days. Mr. Friedemann is currently entitled to 20 vacation days per year. The above table assumes that there is no earned but unpaid base salary as of the time of termination.
- (2) As of December 31, 2009, Mr. Friedemann held 19,999 unvested shares of restricted stock and unvested options to purchase 75,000 shares of our common stock. The value of accelerated unvested options was calculated by multiplying 75,000 shares underlying Mr. Friedemann’s unvested options by \$5.92 (the closing price per share on December 31, 2009) and then deducting the aggregate exercise prices for those shares (equal to \$3.00 per share for 40,000 options). Options having an exercise price greater than \$5.92 were calculated with a zero value. The value of his accelerated unvested restricted stock was calculated by multiplying 19,999 shares by \$5.92.

David L. Roland

Termination and Change of Control. Mr. Roland is entitled to certain benefits under his employment agreement upon any of the following events:

- we terminate his employment other than for cause, death or disability; or
- Mr. Roland resigns for “good reason.”

In the above scenarios, Mr. Roland would be entitled to receive the following (less applicable withholding taxes):

- over a one-year period, a cash amount equal to his annual base salary;
- all incentive plan bonuses then due to him under the terms of the relevant incentive compensation plan in effect for any previous year and a prorated portion of the target incentive plan bonus that he would have been eligible to receive under any incentive compensation plan in effect with respect to the current year; and
- continuation of insurance coverage for Mr. Roland as of the date of his termination for a period of one year at the same cost to him as prior to the termination.

Upon a change of control involving our company, all of Mr. Roland's unvested stock options and restricted stock will automatically accelerate and become fully vested. Mr. Roland's employment agreement contains no change-of-control severance payment rights.

Death, Disability or Retirement. Upon his death, disability or retirement, all options and restricted stock that Mr. Roland holds would automatically accelerate and become fully vested.

Termination by Us for Cause or by Mr. Roland Other Than for Good Reason. Upon any termination by us for cause or any resignation by Mr. Roland for any reason other than "good reason" (as defined in his employment agreement), Mr. Roland is not entitled to any payment or benefit other than the payment of unpaid salary and accrued and unused vacation pay.

Mr. Roland's vested stock options will remain exercisable after his termination of employment, death, disability or retirement for periods of between 180 days and one year following such event, depending on the event and the terms of the applicable stock plan and grant agreement. If Mr. Roland is terminated for cause, all of his vested and unvested stock options and unvested restricted stock will be immediately forfeited.

Assuming Mr. Roland's employment was terminated under each of these circumstances or a change of control occurred on December 31, 2009, his payments and benefits would have an estimated value as follows (less applicable withholding taxes):

<u>Scenario</u>	<u>Cash Severance (\$)(1)</u>	<u>Bonus (\$)(2)</u>	<u>Insurance Continuation (\$)(3)</u>	<u>Tax Gross-Ups (\$)</u>	<u>Value of Accelerated Equity Awards (\$)(4)</u>
Without Cause or For Good Reason	270,000	135,000	14,436	—	—
Change of Control (regardless of termination) or Death, Disability or Retirement	—	—	—	—	302,494
Voluntary Termination.	—	—	—	—	—

- (1) Payable over a one-year period. In addition to the listed amounts, if Mr. Roland resigns or his employment is terminated for any reason, he would be entitled to be paid for his unused vacation days. Mr. Roland is currently entitled to 20 vacation days per year. The above table assumes that there is no earned but unpaid base salary as of the time of termination.
- (2) Represents an estimate of the target bonus payment Mr. Roland would be entitled to receive pursuant to our 2009 incentive plan. The actual bonus payment he would be entitled to receive upon his termination may be different from the estimated amount, depending on the achievement of payment criteria under the bonus plan.
- (3) The value of insurance continuation contained in the above table is the total cost of COBRA continuation coverage for Mr. Roland, maintaining his same levels of medical, dental and other insurance in effect as of December 31, 2009, less the amount of premiums to be paid by Mr. Roland for such coverage.
- (4) As of December 31, 2009, Mr. Roland held 39,999 unvested shares of restricted stock and unvested stock options to purchase 70,000 shares of common stock. The value of accelerated unvested options was calculated by multiplying 70,000 shares underlying Mr. Roland's unvested options by \$5.92 (the closing price per share on December 31, 2009) and then deducting the aggregate exercise prices for those shares (equal to \$3.00 per share for 22,500 options). Options having an exercise price greater than \$5.92 were calculated with a zero value. The value of accelerated unvested restricted stock was calculated by multiplying 39,999 shares by \$5.92.

2008 Pension Benefits And Nonqualified Deferred Compensation

None of our named executive officers participates or has account balances in (i) any qualified or non-qualified defined benefit plans or (ii) in any non-qualified defined contribution plans or other deferred compensation plans maintained by us.

DIRECTOR COMPENSATION

General

ION employees who are also directors do not receive any fee or remuneration for services as members of our Board of Directors. We currently have nine non-employee directors who qualify for compensation as directors. In addition to being reimbursed for all reasonable out-of-pocket expenses that the director incurs attending Board meetings and functions, until March 2009 our outside directors received an annual retainer fee of \$46,000. In addition, until March 2009 the Chairman of the Audit Committee had been entitled to receive an annual retainer fee of \$12,500, the Chairman of the Compensation Committee had been entitled to receive an annual retainer fee of \$10,000, the Chairman of the Governance Committee had been entitled to receive an annual retainer fee of \$5,000, and each co-Chairman of the Finance Committee had been entitled to receive an annual retainer fee of \$5,000. Until March 2009, outside directors also received, in cash, \$2,000 for each Board meeting and \$2,000 for each committee meeting attended (unless the committee meeting was held in conjunction with a Board meeting, in which case the fee for committee meeting attendance was \$1,000) and \$1,000 for each Board or committee meeting held via teleconference.

In order to reduce operating costs during the market downturn resulting from the economic recession and decline in oil and gas prices, in March 2009 the Board reduced by 15% the amount of retainer and meeting fees each director receives, so that commencing effective in April 2009, our outside directors received an annual retainer fee of \$39,100, the Chairman of the Audit Committee received an annual retainer fee of \$10,600, the Chairman of the Compensation Committee received an annual retainer fee of \$8,500, the Chairman of the Governance Committee received an annual retainer fee of \$4,300, each co-Chairman of the Finance Committee received an annual retainer fee of \$4,300, and each outside director received \$1,700 for each in-person Board meeting attended and \$1,700 for each in-person committee meeting attended (unless the committee meeting is held in conjunction with a Board meeting, in which case the fee for committee meeting attendance was \$900) and \$900 for each Board or committee meeting held via teleconference. Effective on November 1, 2009, the amount of retainer and meeting fees each director receives increased to its amount in effect prior to the March 2009 reduction.

Each outside director also receives an initial grant of 8,000 vested shares of our common stock on the first quarterly grant date after joining the Board and follow-on grants of 12,000 vested shares of our stock each year.

In 1992, we adopted a Directors Retirement Plan. We discontinued this plan in 1996. Mr. Elliott is the only director entitled to receive any benefits under the Directors Retirement Plan. This plan requires us to make a lump sum payment to Mr. Elliott following his retirement from the Board, in an amount equal to the present value of \$15,000 to be received annually for a period of ten years.

The following table summarizes the compensation earned by ION's non-employee directors in 2009:

Name(1)	Fees Earned or Paid in Cash (\$)	Stock Awards \$(2)	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
James M. Lapeyre, Jr.	71,400	65,280	—	—	—	136,680
Bruce S. Appelbaum, PhD . .	65,200	65,280	—	—	—	130,480
Theodore H. Elliott, Jr.	64,200	65,280	—	—	—	129,480
G. Thomas Marsh.	56,600	86,680	—	—	—	143,280
Franklin Myers.	83,700	65,280	—	—	—	148,980
S. James Nelson, Jr.	84,700	65,280	—	—	—	149,980
John N. Seitz	65,200	65,280	—	—	—	130,480
Nicholas G. Vlahakis	56,700	86,680	—	—	—	143,380
Guo Yueliang(3)	—	—	—	—	—	—

- (1) Robert P. Peebler, our Chief Executive Officer, is not included in this table because he is an employee of ION and therefore received no compensation for his services as a director. The compensation received by Mr. Peebler as an employee of ION is shown in the Summary Compensation Table above.
- (2) All of the amounts shown represent the value of common stock granted under our 2004 Long-Term Incentive Plan. On March 1, 2009, Messrs. Marsh and Vlahakis were each granted an award of 20,000 shares of ION common stock pursuant to the Director Compensation terms discussed above. On December 1, 2009, each of our non-employee directors was granted an award of 12,000 shares of ION common stock. The values contained in the table are based on the grant-date fair value of awards of stock during the fiscal year.
- (3) Mr. Guo was appointed to the Board effective on April 1, 2010.

As of December 31, 2009, our non-employee directors held the following unvested and unexercised ION equity awards:

<u>Name</u>	<u>Unvested Stock Awards(#)</u>	<u>Unexercised Option Awards(#)</u>
James M. Lapeyre, Jr.	—	90,000
Bruce S. Appelbaum, PhD	—	80,000
Theodore H. Elliott, Jr.	—	70,000
G. Thomas Marsh.	—	—
Franklin Myers.	—	55,000
S. James Nelson, Jr.	—	70,000
John N. Seitz.	—	80,000
Nicholas G. Vlahakis.	—	—
Guo Yueliang.	—	—

Equity Compensation Plan Information
(as of December 31, 2009)

The following table provides certain information regarding our equity compensation plans under which equity securities are authorized for issuance:

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)</u>	<u>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)</u>	<u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)</u>
Equity Compensation Plans Approved by Security Holders			
Amended and Restated 1990 Stock Option Plan	107,691	\$ 5.86	0
Amended and Restated 1996 Non-Employee Director Stock Option Plan	295,000	\$ 7.17	0
2000 Long-Term Incentive Plan	451,275	\$ 6.80	0
2003 Stock Option Plan	1,442,500	\$ 6.41	26,750
2004 Long-Term Incentive Plan	4,763,925	\$ 8.07	384,123
GX Technology Corporation Employee Stock Option Plan	<u>200,172</u>	\$ 2.49	<u>0</u>
Subtotal	7,260,563		410,873
Equity Compensation Plans Not Approved by Security Holders			
Non-Employee Directors' Retainer Plan	—	—	21,769
2000 Restricted Stock Plan	—	—	10,602
April 2005 Inducement Equity Program	55,000	\$ 6.49	0
ARAM Systems Employee Inducement Stock Option Program	266,500	\$14.10	0
Concept Systems Employment Inducement Stock Option Program	31,250	\$ 6.42	0
GX Technology Corporation Employment Inducement Stock Option Program	<u>152,875</u>	\$ 7.09	<u>0</u>
Subtotal	<u>505,625</u>		<u>32,371</u>
Total	<u>7,766,188</u>		<u>443,244</u>

Following are brief descriptions of the material terms of each equity compensation plan that was not approved by our stockholders:

Non-Employee Directors' Retainer Plan. In 2001, our Board adopted arrangements whereby our non-employee directors can elect to receive their annual retainer for service as a director, and any retainer for serving as a committee chairman, in cash or in common stock. Any common stock issued pursuant to these arrangements is valued at the closing price of our common stock on the last trading day before their issuance. The Board reserved 100,000 of our treasury shares for issuance under these arrangements. The Board elected to forego this election right for 2009 and as a result non-employee directors received their retainers only in cash.

2000 Restricted Stock Plan. During 2000, our Board approved the ION Geophysical Corporation 2000 Restricted Stock Plan. This plan grants the Compensation Committee the authority to make awards of restricted stock of up to 200,000 shares of our common stock in order to attract and retain key employees of

ION and our subsidiaries. Awards may be made from authorized and unissued shares or treasury shares, but the plan provides that shares delivered under the initial grants under the plan must be made only from treasury shares or common stock repurchased by ION. As of December 31, 2009, there were 14,265 shares of restricted stock issued and outstanding under this plan.

Under the terms of this plan, ION enters into individual award agreements with participants designated by the Compensation Committee specifying the number of shares of common stock granted under the award, the price (if any) to be paid by the grantee for the restricted stock, the restriction period during which the award is subject to forfeiture, and any performance objectives specified by the Committee. Participants are not permitted to sell, transfer or pledge their restricted stock during their restriction period.

Upon termination of a participant's employment with us for any reason other than death, disability or retirement, all non-vested shares of restricted stock will be forfeited. In addition, in the event of a change of control of ION, all shares of restricted stock will become fully vested. The 2000 Restricted Stock Plan expired on March 13, 2010.

ION Geophysical Corporation April 2005 Inducement Equity Program. As a material inducement to a former employee to join our company, in April 2005 we entered into an Employment Inducement Restricted Stock Agreement and an Employment Inducement Stock Option Agreement with the employee. These agreements provided for the grant to the employee of 20,000 shares of restricted common stock and stock options to purchase 55,000 shares of common stock. The term of these stock options expires on April 4, 2015, and the options became exercisable in four equal installments with respect to 25% of the underlying shares on the first, second, third and fourth consecutive anniversary dates of the date of grant. The shares of restricted stock vested in three equal installments with respect to 33.33% of the underlying shares on the first, second and third consecutive anniversary dates of the date of grant.

ION Geophysical Corporation — Concept Systems Employment Inducement Stock Option Program. In connection with our acquisition of the share capital of Concept Systems Holding Limited in February 2004, we entered into employment inducement stock option agreements with 12 key employees of Concept as material inducements to their joining ION. The terms of these stock options are for 10 years, and the options became exercisable in four equal installments each year with respect to 25% of the shares on the first, second, third and fourth consecutive anniversary dates of the date of grant. The number of shares of common stock covered by each option is subject to adjustment to prevent dilution resulting from stock dividends, stock splits, recapitalizations or similar transactions.

ION Geophysical Corporation — GX Technology Corporation Employment Inducement Stock Option Program. In connection with our acquisition of all of the capital stock of GX Technology Corporation in June 2004, we entered into employment inducement stock option agreements with 29 key employees of GXT as material inducements to their joining ION. The terms of these stock options are for 10 years, and the options became exercisable in four equal installments each year with respect to 25% of the shares each on the first, second, third and fourth consecutive anniversary dates of the date of grant. The number of shares of common stock covered by each option is subject to adjustment to prevent dilution resulting from stock dividends, stock splits, recapitalizations or similar transactions.

ION Geophysical Corporation — ARAM Systems Employee Inducement Stock Option Program. In connection with our acquisition of all of the capital stock of ARAM Systems, Ltd and its affiliates in September 2008, we entered into employment inducement stock option agreements with 48 key employees of ARAM as material inducements to their joining ION. The terms of these stock options are for 10 years, and the options become exercisable in four equal installments each year with respect to 25% of the shares each on the first, second, third and fourth consecutive anniversary dates of the date of grant. The options may be sooner exercised upon the occurrence of a "change of control" of ION. The number of shares of common stock covered by each option is subject to adjustment to prevent dilution resulting from stock dividends, stock splits, recapitalizations or similar transactions.

A description of our Stock Appreciation Rights Plan has not been provided in this sub-section because awards of SARs under that plan may be settled only in cash.

ITEM 2 — PROPOSAL TO AMEND THE 2004 LONG-TERM INCENTIVE PLAN

Proposed Amendments

On May 3, 2004, our Board of Directors adopted the 2004 Long-Term Incentive Plan (the “2004 Plan”), and the 2004 Plan was approved by our stockholders at our 2004 Annual Meeting. At our 2007 Annual Meeting, held on May 21, 2007, our stockholders approved an amendment to the 2004 Plan to increase the total number of shares of our common stock available for issuance under the 2004 Plan from 4,300,000 to 6,700,000 shares. At our 2008 Annual Meeting, held on May 27, 2008, our stockholders approved an amendment to the 2004 Plan to increase the total number of shares of our common stock available for issuance under the 2004 Plan from 6,700,000 to 7,700,000 shares. In 2009, we did not propose any increases to the total number of shares of our common stock available for issuance under the 2004 Plan.

On April 1, 2010, our Board of Directors approved, subject to stockholder approval, further amendments to the 2004 Plan to increase by 2,500,000 the total number of shares of our common stock available for issuance under the 2004 Plan. Our Board of Directors believes it is desirable to increase the number of shares available for issuance under the 2004 Plan in order to (i) continue to promote stockholder value by providing appropriate incentives to key employees and certain other individuals who perform services for our company and (ii) continue awarding our non-employee directors with stock options, restricted stock and other forms of equity compensation as a means to retain capable directors and attract and recruit qualified new directors in a manner that promotes ownership of a proprietary interest in our company. As of March 31, 2010, without giving effect to the proposed 2010 amendments, there were 5,545,750 shares issued or committed for issuance under outstanding options or other awards under the 2004 Plan and only 335,188 shares available for future grant and issuance to our employees and non-employee directors.

Description of the 2004 Plan

The material features of the 2004 Plan are described below. The complete text of the 2004 Plan, including the proposed amendments, is included as **Appendix A** to this proxy statement. The following summary is qualified by reference to such copy of the amended 2004 Plan that is attached as **Appendix A**.

General. The 2004 Plan is not subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA), and is not a “qualified plan” within the meaning of section 401 of the Internal Revenue Code. The primary objective of the 2004 Plan is to promote the long-term financial success of our company and to increase stockholder value by: (a) encouraging the commitment of directors and selected key employees and consultants, (b) motivating superior performance of key employees and consultants by means of long-term performance related incentives, (c) encouraging and providing directors and selected key employees and consultants with a program for obtaining ownership interests in our company that link and align their personal interests to those of our stockholders, (d) attracting and retaining directors and selected key employees and consultants by providing competitive incentive compensation opportunities, and (e) enabling directors and selected key employees and consultants to share in the long-term growth and success of our company.

The 2004 Plan is administered by the Compensation Committee. The 2004 Plan provides for the granting of stock options, stock appreciation rights, performance share awards, restricted stock, restricted stock units and other equity-based awards that provide similar benefits. Certain awards under the 2004 Plan may be paid in cash or common stock, as determined by the Committee. The Committee has discretion to select the participants who will receive awards and to determine the type, size and terms of each award. Eligible participants under the plan include our non-employee directors, key employees and independent consultants. The Committee will also make all other determinations that it decides are necessary or desirable in the interpretation and administration of the Plan. At the present time, all members of our Board of Directors other than Robert P. Peebler are considered non-employee directors for purposes of the 2004 Plan.

For information concerning stock options granted during 2009 under the 2004 Plan to our named executive officers, see “*Executive Compensation — 2009 Grants of Plan-Based Awards.*”

Shares Subject to the 2004 Plan. If our stockholders approve the amendments to the 2004 Plan, the Compensation Committee will be able to grant awards covering at any one time up to 10,200,000 shares of common stock. The number of shares of common stock available under the 2004 Plan and outstanding awards are subject to adjustment to prevent the dilution of rights of plan participants resulting from stock dividends, stock splits, recapitalizations or similar transactions. In addition to the shares reserved under the 2004 Plan, the plan also provides that there will be available for issuance under the 2004 Plan an additional 36,333 shares, which represents the number of shares that were reserved under the expired ION Geophysical Corporation Amended and Restated 1996 Non-Employee Director Stock Option Plan (but not covered by exercised or outstanding options thereunder) and have been assumed under the terms of the 2004 Plan.

Awards under the 2004 Plan. Under the 2004 Plan, the Compensation Committee may grant awards in the form of Incentive Stock Options (ISOs), as defined in section 422 of the Internal Revenue Code, “nonstatutory” stock options (NSOs), stock appreciation rights (SARs), performance shares, and other stock-based awards. ISOs and NSOs together are referred to as “options” for purposes of this description of the 2004 Plan. The terms of each award are reflected in an incentive agreement between our company and the participant.

Options. Generally, options must be exercised within 10 years of the grant date, except with respect to ISO grants to a 10% or greater stockholder, which are required to be exercised within five years. The exercise price of each option may not be less than 100% of the fair market value of a share of common stock on the date of grant, or 110% in the case of an ISO grant to a 10% or greater stockholder. To the extent the aggregate fair market value of shares of common stock for which ISOs are exercisable for the first time by any employee during any calendar year exceeds \$100,000, those options must be treated as NSOs. The exercise price of each option is payable in cash or, in the Compensation Committee’s discretion, by the delivery of shares of common stock owned by the optionee, or by any combination of these methods. No option issued under the 2004 Plan may be repriced, replaced or regranted through cancellation or by lowering the option price of a previously granted option.

SARs. Upon the exercise of a SAR, the holder will receive cash, common stock, or a combination thereof, the aggregate value of which equals the amount by which the fair market value per share of the common stock on the exercise date exceeds the exercise price of the SAR, multiplied by the number of shares underlying the exercised portion of the SAR. A SAR may be granted in tandem with or independently of an NSO. SARs are subject to such conditions and are exercisable at such times as determined by the Compensation Committee, but the exercise price per share must be at least the fair market value of a share of common stock on the date of grant.

Performance Shares. Performance Shares are awards of common stock contingent upon the degree to which performance objectives selected by the Compensation Committee are achieved during a specified period, subject to adjustment by the Committee. The Committee establishes performance objectives that may be based upon company, business segment, participant or other performance objectives as well as the period during which such performance objectives are to be achieved. Examples of performance criteria include, but are not limited to, pre-tax or after-tax profit levels, including: earnings per share, earnings before interest and taxes, earnings before interest, taxes, depreciation and amortization, net operating profits after tax, and net income; total shareholder return; return on assets, equity, capital or investment; cash flow and cash flow return on investment; economic value added and economic profit; growth in earnings per share; levels of operating expense and maintenance expense or measures of customer satisfaction and customer service as determined from time to time, including the relative improvement therein. The Committee may make such adjustments in the computation of any performance measure, provided that any such modification does not prevent an award from qualifying for the “Performance-Based Exception” under section 162(m) of the Internal Revenue Code, which is described below. Performance shares may be awarded alone or in conjunction with other awards. Payment of performance shares may be made only in shares of common stock.

Restricted Stock/Restricted Stock Units. Included in this category of awards are non-performance-based grants of shares of restricted stock and restricted stock units that vest over a period of time based on the participant’s continuing employment with ION or its subsidiaries. Unless the Compensation Committee

determines otherwise at the date of grant, shares of restricted stock will carry full voting rights and other rights as a stockholder, including rights to receive dividends and other distributions on common stock. Unrestricted shares of common stock will be delivered when the restrictions lapse. The Committee may also grant restricted stock units under the 2004 Plan, which entitle the participant to the issuance of shares of our common stock when the restrictions on the units awarded lapse.

Other Stock-Based Awards. Other stock-based awards are denominated or payable in, valued in whole or in part by reference to, or otherwise related to, shares of common stock. Other types of stock-based awards include, without limitation, deferred stock, purchase rights, shares of common stock awarded which are not subject to any restrictions or conditions, convertible or exchangeable debentures, other rights convertible into shares, incentive awards valued by reference to the value of securities of or the performance of a specified subsidiary, division or department, and settlement in cancellation of rights of any person with a vested interest in any other plan, fund, program or arrangement that is or was sponsored, maintained or participated in by our company or any parent or subsidiary. Subject to the terms of the 2004 Plan, the Compensation Committee may determine the terms and conditions of any stock-based awards, and those terms are to be set forth in the incentive agreement with the participant.

Supplemental Payments. The Compensation Committee, either at the time of grant or at the time of exercise of an NSO or SAR or the time of vesting of performance shares, may provide for a supplemental payment by our company to the participant in an amount specified by the Committee. The supplemental payment amount shall not exceed the amount necessary to pay the federal and state income tax payable with respect to the exercise of the NSO or SAR, the vesting of the performance shares and the receipt of a supplemental payment in connection therewith, assuming the participant is taxed at either the maximum effective income tax rate applicable to such awards or at a lower tax rate, as deemed appropriate by the Committee. The Committee shall have the discretion to grant supplemental payments that are payable in common stock or cash, determined by the Committee at the time of the payment.

Termination of Employment and Change in Control. Except as otherwise provided in the applicable incentive agreement, if a participant's employment or other service is terminated other than due to his death, disability, retirement or for cause, any non-vested portion of stock options or other applicable awards will terminate and no further vesting will occur. In such event, then exercisable options and awards will remain exercisable until the earlier of the expiration date set forth in the incentive agreement or 180 days after the date of termination of employment, except with respect to ISOs, in which case the period is three months. If termination of employment is due to disability, death or retirement, (a) any restrictions on stock-based awards will be deemed satisfied and all outstanding options will accelerate and become immediately exercisable and (b) a participant's then exercisable options will remain exercisable until the earlier of the expiration date of such options or one year following termination (except for ISOs, which will remain exercisable for only three months following termination). Upon termination for cause, all vested and non-vested options and unvested restricted stock will expire at the date of termination. Upon a change in control, any restrictions on stock-based awards will be deemed satisfied, all outstanding options and SARs will accelerate and become immediately exercisable and all the performance shares and any other stock-based awards will become fully vested and deemed earned in full.

Performance-Based Exception. Under section 162(m) of the Internal Revenue Code, we may deduct, for federal income-tax purposes, compensation paid to our chief executive officer and four other most highly compensated executive officers only to the extent that such compensation does not exceed \$1,000,000 for any such individual during any year, excluding compensation that qualifies as "performance-based compensation." The 2004 Plan includes features necessary for certain awards under the plan to qualify as "performance-based compensation." To qualify, stock options granted under the 2004 Plan to covered individuals must have an exercise price per share that is not less than the fair market value of a share of the common stock on the date of grant. Performance shares may qualify for the exemption only if the Compensation Committee establishes in writing objective performance goals for such awards no later than 90 days after the commencement of the performance period and no payments are made to participants pursuant to the awards until the Committee certifies in writing that the applicable performance goals have been met.

Federal Tax Consequences. The federal income tax discussion set forth below is intended for general information only. State and local income tax consequences are not discussed, and may vary from locality to locality.

NSOs. Under present regulations, an optionee who is granted an NSO will not realize taxable income at the time the stock option is granted. In general, an optionee will be subject to tax for the year of exercise on an amount of ordinary income equal to the excess of the fair market value of the shares on the date of exercise over the option price, and, subject to section 162(m) of the Internal Revenue Code and the requirement of reasonableness ION will receive a corresponding deduction. Income tax withholding requirements apply upon exercise. The optionee's basis in the shares so acquired equal the option price plus the amount of ordinary income upon which he is taxed. Upon subsequent disposition of the shares, the optionee will realize long- or short-term capital gain or loss, depending upon the length of time the shares are held after the option is exercised.

ISOs. An optionee is not taxed at the time an ISO is granted. The tax consequences upon exercise and later disposition depend upon whether the optionee was an employee of ION or a subsidiary at all times from the date of grant until three months preceding exercise, or one year in the case of death or disability, and on whether the optionee holds the shares for more than one year after exercise and two years after the date of grant of the option. If the optionee satisfies both the employment rule and the holding rule, for regular tax purposes the optionee will not realize income upon exercise of the option and we will not be allowed an income tax deduction at any time. The difference between the option price and the amount realized upon disposition of the shares by the optionee will constitute a long-term capital gain or a long-term capital loss, as the case may be. Neither the employment rule nor the holding rule will apply to the exercise of an option by the estate of an optionee, provided that the optionee satisfied the employment rule as of the date of such optionee's death. If the optionee meets the employment rule but fails to observe the holding rule, a disqualifying disposition, the optionee generally recognizes as ordinary income, in the year of the disqualifying disposition, the excess of the fair market value of the shares at the date of exercise over the option price. Any excess of the sales price over the fair market value at the date of exercise will be recognized by the optionee as long-term or short-term capital gain, depending on the length of time the stock was held after the option was exercised. If, however, the sales price is less than the fair market value at the date of exercise, then the ordinary income recognized by the optionee is generally limited to the excess of the sales price over the option price. In both situations, our tax deduction is limited to the amount of ordinary income recognized by the optionee. Different consequences apply for an optionee subject to the alternative minimum tax.

SARs. Generally, the recipient of a stand-alone SAR will not recognize taxable income at the time the stand-alone SAR is granted. If an employee receives the appreciation inherent in the SARs in cash, the cash will be taxed as ordinary income to the employee at the time it is received. If an employee receives the appreciation inherent in the SARs in stock, the spread between the then-current market value and the base price will be taxed as ordinary income to the employee at the time it is received. In general, there will be no federal income tax deduction allowed to us upon the grant or termination of SARs. However, upon the settlement of a SAR, we will be entitled to a deduction equal to the amount of ordinary income the recipient is required to recognize as a result of the settlement. The federal income tax treatment for SARs may be effected beginning in 2005 by recently enacted changes to the Internal Revenue Code.

Performance Shares. A participant is not taxed upon the grant of performance shares. Upon receipt of the underlying shares or cash, he will be taxed at ordinary income tax rates on the amount of cash received or the current fair market value of stock received, and we will be entitled to a corresponding tax deduction. The participant's basis in any shares acquired pursuant to the settlement of performance shares will be equal to the amount of ordinary income on which he was taxed and, upon subsequent disposition, any gain or loss will be capital gain or loss.

Restricted Stock and Restricted Stock Units. The current United States federal income tax consequences of the other stock-based awards authorized under the 2004 Plan are generally as follows: (i) restricted stock is generally subject to ordinary income tax at the time the restrictions lapse unless the recipient elects to accelerate recognition as of the date of grant; (ii) restricted stock unit awards are generally subject to ordinary

income tax at the time of payment or issuance of unrestricted shares; and (iii) unrestricted stock awards are generally subject to ordinary income tax at the time of grant. In each of the foregoing instances, we will generally be entitled to a corresponding federal income tax deduction at the same time the participant recognizes ordinary income.

Withholding. We have the right to reduce the number of shares of common stock deliverable pursuant to the 2004 Plan by an amount that would have a fair market value equal to the amount of all federal, state or local taxes to be withheld, based on the tax rates then in effect or the tax rates that we reasonably believe will be in effect for the applicable tax year, or to deduct the amount of such taxes from any cash payment to be made to the participant, pursuant to the 2004 Plan or otherwise.

New Plan Benefits. It is not possible to predict the individuals who will receive future awards under the 2004 Plan or the number of shares of common stock covered by any future award because such awards are wholly within the discretion of the Compensation Committee. However, please refer to the description of grants made to our named executive officers in the last fiscal year described in the “2009 Grants of Plan-Based Awards” table above. Grants made to our non-employee directors in the last fiscal year are described in “Director Compensation” above. On March 31, 2010, the closing price of a share of our common stock on the NYSE composite tape transactions was \$4.92.

Termination or Amendment of the 2004 Plan. The Board may amend, alter or discontinue the 2004 Plan at any time. The Board or the Compensation Committee may amend the terms of any award previously granted; however, no amendment or discontinuance may impair the existing rights of any participant without the participant’s consent. The Board may not amend the 2004 Plan without stockholder approval if the amendment would materially increase the benefits received by participants, materially increase the maximum number of shares that may be issued under the plan or materially modify the plan’s eligibility requirements, or require shareholder approval under tax or regulatory requirements. The 2004 Plan also provides that stock options granted under the plan will not be (i) repriced by lowering the exercise price after grant or (ii) replaced or regranted through cancellation. In addition, we will seek the approval of our stockholders for any amendment if approval is necessary to comply with the Internal Revenue Code, federal or state securities laws or any other applicable rules or regulations. Unless sooner terminated, the 2004 Plan will expire on May 3, 2014, and no awards may be granted under the 2004 Plan after that date.

Stockholder Approval

The proposal to amend the 2004 Plan requires the approval of a majority of the votes cast at our 2010 Annual Meeting, so long as the total votes cast on the proposal exceeds 50% of the total number of shares of common stock outstanding.

The Board of Directors recommends that stockholders vote “FOR” the proposal to amend the 2004 Long-Term Incentive Plan.

ITEM 3 — APPROVAL OF THE ION EMPLOYEE STOCK PURCHASE PLAN

Introduction

Prior to December 31, 2008, the company had an employee stock purchase plan. Due to the global financial crisis that occurred in late 2008 and continued into 2009, the company’s stock price dropped to historic lows for a period of time, which caused the company’s employee stock purchase plan to be depleted of available shares and, as a result, automatically terminate. In February 2010, the Board of Directors adopted the Purchase Plan to replace the employee stock purchase plan that terminated at the end of 2008.

Description of the Purchase Plan

The material features of the Purchase Plan are described below. The complete text of the Purchase Plan is included as **Appendix B** to this proxy statement. The following summary is qualified by reference to such copy of the Purchase Plan that is attached as **Appendix B**.

General. Under the Purchase Plan, eligible employees of our company may purchase shares of ION common stock at a discount from fair market value directly from the company from authorized but previously unissued shares or shares held in the treasury. All regular full-time or part-time employees of ION or its wholly-owned subsidiaries whose customary employment is more than 20 hours per week or five months per calendar year are eligible to participate in the Purchase Plan. The primary objective of the Purchase Plan is to promote the long-term financial success of the company and to increase stockholder value by (a) encouraging and providing employees with a regular investment program for obtaining ownership interests in our company that link and align their personal interests to those of our stockholders and (b) enabling employees to share in the long-term growth and success of our company.

Although stockholder approval of the Purchase Plan is not required by applicable law or regulations, stockholder approval is required in order for the Purchase Plan to qualify under Section 423 of the Internal Revenue Code. Qualification under Section 423 will permit the company's employees to benefit from the favorable tax treatment described below. If the company's stockholders do not approve the proposal, the Board of Directors will not commence any offerings under the Purchase Plan. The Board of Directors believes the Purchase Plan provides a potentially significant benefit to employees and is in the interests of the company and its stockholders generally.

Administration and Eligibility. The Purchase Plan reserves 1,500,000 shares of ION common stock (subject to adjustments for stock-splits and similar capital changes) for issuance under the plan. The Purchase Plan will remain in effect for a period of ten years, unless terminated earlier by the Board of Directors. If not terminated earlier, the Purchase Plan will terminate on February 11, 2020. As of April 1, 2010, approximately 900 employees of the company and its subsidiaries would have been eligible to participate under the Purchase Plan. To date, no shares of common stock have been issued under the Purchase Plan. The Purchase Plan is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Internal Revenue Code.

The Board has appointed the Compensation Committee to administer the Purchase Plan. Rights to purchase ION common stock under the Purchase Plan are granted at the discretion of the Compensation Committee, which determines the frequency and duration of individual offerings under the Purchase Plan and the dates when stock may be purchased. Offerings may last up to 27 months, or such longer period as may then be consistent with Section 423; however, we currently expect that each offering will last six months. Eligible employees participate voluntarily and may withdraw from any offering at any time before stock is purchased. Participation terminates automatically upon termination of employment, except termination because of disability or death.

A participant may designate that the company use payroll deductions to purchase stock at a rate that is at least 1% but not more than 10% of such participant's base annual compensation. On a designated date, payroll deductions accumulated during the offering period are applied automatically to purchase ION common stock. The price of each share of common stock purchased under the Purchase Plan will initially be equal to 85% of its fair market value (based on closing prices on the NYSE) on either the beginning date of the offering period or the end date of the offering period, whichever is lower. The number of shares purchased is determined by dividing the payroll deductions for the offering period by the price paid by the participant. All shares purchased are credited to the participant and registered in the name of the participant in an account maintained for such participant by the custodian of the Purchase Plan.

In accordance with Section 423, no employee may participate in an offering under the Purchase Plan if, immediately after the right to acquire shares of common stock in the offering is granted, the employee would own 5% or more of the voting stock of the company (including stock that may be purchased through subscriptions under the Purchase Plan or any other options), and no employee may buy more than \$25,000 worth of ION stock (determined by the fair market value of the common stock at the time the right to purchase the common stock is granted) through the Purchase Plan in any calendar year.

Federal Income Tax Consequences. If the company's stockholders approve the Purchase Plan, participants will not realize taxable income at the commencement of an offering or at the time shares are purchased under the Purchase Plan. If a participant holds shares purchased under the Purchase Plan for at least two years

from the offering commencement date, then upon sale of the shares, the participant will be treated as having received taxable compensation income of 15% of the fair market value of the stock at the commencement of the offering (or, if less, any amount realized on sale of such shares in excess of the purchase price). No deduction will be allowed to the company for Federal income tax purposes upon the purchase of shares or, if the participant waits the prescribed period to sell, upon sale. However, if the participant does not wait the prescribed period to sell, he or she will be treated as having received taxable compensation income upon sale equal to the excess of the fair market value of the stock on the date of purchase over the actual purchase price, and the company will be allowed to deduct that amount. In either case, any difference over or under the participant's tax cost (the purchase price plus the amount of taxable compensation income that the participant recognizes upon sale of the shares) will be treated as capital gain or loss.

Assuming stockholder approval of the Purchase Plan, if a participant dies during the two-year holding period while owning shares purchased under the plan, 15% of the fair market value of the stock at the commencement of the offering period (or, if less, the fair market value of such shares on the date of death in excess of the purchase price) is taxed to the participant as ordinary income in the year of death, and the company would not be allowed a deduction for Federal income tax purposes.

If the stockholders do not approve the Purchase Plan, no offerings will commence under the plan.

New Plan Benefits. If the Purchase Plan is approved by the company's stockholders, eligible employees may purchase shares of ION common stock at their discretion, subject to the limitations under Section 423 of the Internal Revenue Code described above. Consequently, it is not possible for us to determine the amounts or benefits that our employees will receive under the Purchase Plan at this time.

Stockholder Approval

The proposal to approve the Purchase Plan requires the approval of a majority of the votes cast on this proposal at our 2010 Annual Meeting.

The Board of Directors recommends that stockholders vote "FOR" the proposal to approve the Purchase Plan.

ITEM 4 — RATIFICATION OF APPOINTMENT OF INDEPENDENT AUDITORS

We have appointed Ernst & Young LLP as our independent registered public accounting firm (independent auditors) for the fiscal year ending December 31, 2010. Services provided by Ernst & Young LLP to our company in 2009 included the examination of our consolidated financial statements, review of our quarterly financial statements, statutory audits of our foreign subsidiaries, internal control audit services, review of our Securities Act registration statements filed during 2009 and consultations on various tax and accounting matters.

The Board of Directors recommends that stockholders vote "FOR" ratification of the appointment of Ernst & Young LLP as our independent auditors for 2010.

In the event stockholders do not ratify the appointment, the appointment will be reconsidered by the Audit Committee. Regardless of the outcome of the vote, however, the Audit Committee at all times has the authority within its discretion to recommend and approve any appointment, retention or dismissal of our independent auditors.

REPORT OF THE AUDIT COMMITTEE

The following Report of the Audit Committee does not constitute soliciting material and shall not be deemed filed or incorporated by reference into any other filings under the Securities Act of 1933 or the Exchange Act, except to the extent ION specifically incorporates this Report by reference therein.

ION's management is responsible for ION's internal controls, financial reporting process, compliance with laws, regulations and ethical business standards and the preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States. ION's independent registered public accounting firm is responsible for performing an independent audit of ION's financial statements in accordance with generally accepted auditing standards and issuing a report thereon. The Board of Directors of ION appointed the undersigned directors as members of the Audit Committee and adopted a written charter setting forth the procedures and responsibilities of the Audit Committee. Each year the Audit Committee reviews its Charter and reports to the Board on its adequacy in light of applicable rules of the NYSE. In addition, each year ION furnishes a written affirmation to the NYSE relating to Audit Committee membership, the independence and financial management expertise of the Audit Committee and the adequacy of the Charter of the Audit Committee.

The Charter of the Audit Committee specifies that the primary purpose of the Audit Committee is to assist the Board in its oversight of: (1) the integrity of the financial statements of ION; (2) compliance by ION with legal and regulatory requirements; (3) the independence, qualifications and performance of ION's independent registered public accountants; and (4) the performance of ION's internal auditors and internal audit function. In carrying out these responsibilities during 2009, and early in 2010 in preparation for the filing with the SEC of ION's Annual Report on Form 10-K for the year ended December 31, 2009, the Audit Committee, among other things:

- reviewed and discussed the audited financial statements with management and ION's independent registered public accounting firm;
- reviewed the overall scope and plans for the audit and the results of the examinations of ION's independent registered public accounting firm;
- met with ION management periodically to consider the adequacy of ION's internal control over financial reporting and the quality of its financial reporting and discussed these matters with the independent registered public accounting firm and with appropriate ION financial personnel and internal auditors;
- discussed with ION's senior management, independent registered public accounting firm and internal auditors the process used for ION's chief executive officer and chief financial officer to make the certifications required by the SEC and the Sarbanes-Oxley Act of 2002 in connection with the Form 10-K and other periodic filings with the SEC;
- reviewed and discussed with ION's independent registered public accounting firm (1) their judgments as to the quality (and not just the acceptability) of ION's accounting policies, (2) the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the Public Company Accounting Oversight Board regarding such firm's communication with the Audit Committee concerning independence, and the independence of the independent registered public accounting firm, and (3) the matters required to be discussed with the Audit Committee under auditing standards generally accepted in the United States, including Statement on Auditing Standards No. 61, as amended, "Communication with Audit Committees;"
- based on these reviews and discussions, as well as private discussions with ION's independent registered public accounting firm and internal auditors, recommended to the Board of Directors the inclusion of the audited financial statements of ION and its subsidiaries in the 2009 Form 10-K;
- also recommended the selection of Ernst & Young LLP as ION's independent registered public accounting firm for the fiscal year ending December 31, 2010; and

- determined that the non-audit services provided to ION by its independent registered public accounting firm (discussed below under “Principal Auditor Fees and Services”) are compatible with maintaining the independence of the independent auditors.

The Audit Committee is the principal liaison between the Board of Directors and ION’s independent registered public accounting firm. The functions of the Audit Committee are not intended to duplicate or to certify the activities of management and the independent registered public accounting firm and are in no way designed to supersede or alter the traditional responsibilities of ION’s management and its independent registered public accountants. It is not the duty of the Audit Committee to plan or conduct audits or to determine that ION’s financial statements are complete and accurate and in accordance with generally accepted accounting principles. Management is responsible for ION’s financial reporting process, including its system of internal control over financial reporting, and for the preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States. ION’s independent registered public accounting firm is responsible for expressing an opinion on those financial statements and on the effectiveness of ION’s internal control over financial reporting. The Audit Committee has relied, without independent verification, on management’s representation that the financial statements have been prepared with integrity and objectivity and in conformity with accounting principles generally accepted in the United States, that ION’s internal control over financial reporting was effective as of December 31, 2009, and on the representations of the independent registered public accounting firm in their report on ION’s financial statements.

The Audit Committee met eight times during 2009. The Committee schedules its meetings with a view to ensuring that it devotes appropriate attention to all of its tasks. The Committee’s meetings include, whenever appropriate, executive sessions with ION’s independent registered public accountants and with ION’s internal auditors, in each case without the presence of ION’s management. The Audit Committee has also established procedures for (a) the receipt, retention and treatment of complaints received by ION regarding accounting, internal accounting controls or auditing matters, and (b) the confidential, anonymous submission by ION’s employees of concerns regarding questionable accounting or auditing matters. However, this oversight does not provide the Audit Committee with an independent basis to determine that management has maintained appropriate accounting and financial reporting principles or policies, or appropriate internal controls and procedures designed to assure compliance with accounting standards and applicable laws and regulations. Furthermore, the Committee’s consideration and discussions with management and the independent registered public accounting firm do not assure that ION’s financial statements are presented in accordance with generally accepted accounting principles or that the audit of ION’s financial statements has been carried out in accordance with generally accepted auditing standards.

S. James Nelson, Jr., Chairman
Bruce S. Appelbaum, PhD
Theodore H. Elliott, Jr.

PRINCIPAL AUDITOR FEES AND SERVICES

In connection with the audit of the 2009 financial statements, we entered into an engagement agreement with Ernst & Young LLP that sets forth the terms by which Ernst & Young LLP will perform audit services for our company. The engagement agreement is subject to alternative dispute resolution procedures. The following two tables show the fees billed to us or accrued by us for the audit and other services provided by Ernst & Young LLP, for 2009 and 2008:

	2009	2008
Audit Fees(a)	\$2,829,558	\$3,160,072
Audit-Related Fees	—	—
Tax Fees(b)	12,430	—
All Other Fees(c)	296,321	430,854
Total	\$3,138,309	\$3,590,926

- (a) Audit fees consist primarily of the audit and quarterly reviews of the consolidated financial statements, the audit of the effectiveness of internal control over financial reporting, audits of subsidiaries, statutory audits of subsidiaries required by governmental or regulatory bodies, attestation services required by statute or regulation, comfort letters, consents, assistance with and review of documents filed with the SEC, work performed by tax professionals in connection with the audit and quarterly reviews, and accounting and financial reporting consultations and research work necessary to comply with generally accepted auditing standards.
- (b) Tax fees are primarily for local country tax advisory services, including advice on the tax effect of structuring and operational matters.
- (c) All other fees primarily relate to due diligence work during 2009 regarding our joint venture with BGP, which was completed in March 2010, and our acquisition of ARAM in 2008. Also included are licensing fees related to accounting research software.


Our Audit Committee Charter provides that all audit services and non-audit services must be approved by the Committee or a member of the Committee. The Audit Committee has delegated to the Chairman of the Audit Committee the authority to pre-approve audit, audit-related and non-audit services not prohibited by law to be performed by our independent auditors and associated fees, so long as (i) the estimate of such fees does not exceed \$50,000, (ii) the Chairman reports any decisions to pre-approve those services and fees to the full Audit Committee at a future meeting and (iii) the term of any specific pre-approval given by the Chairman does not exceed 12 months from the date of pre-approval.

All non-audit services were reviewed with the Audit Committee or the Chairman, which concluded that the provision of such services by Ernst & Young LLP was compatible with the maintenance of such firm's independence in the conduct of its auditing functions.

Other Matters

A representative of Ernst & Young LLP will be present at the annual meeting, will be afforded an opportunity to make a statement if he/she desires to do so and will be available to respond to appropriate questions.

This proxy statement has been approved by the Board of Directors and is being mailed and delivered to stockholders by its authority.



David L. Roland
*Senior Vice President, General Counsel
and Corporate Secretary*

Houston, Texas
April 21, 2010

The 2009 Annual Report to Stockholders includes our financial statements for the fiscal year ended December 31, 2009. We have mailed the 2009 Annual Report to Stockholders with this Proxy Statement to all of our stockholders of record. The 2009 Annual Report to Stockholders does not form any part of the material for the solicitation of proxies.

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**FIFTH AMENDED AND RESTATED
2004 LONG-TERM INCENTIVE PLAN**

SECTION 1

GENERAL PROVISIONS RELATING
TO PLAN GOVERNANCE, COVERAGE AND BENEFITS

1.1 *Purpose*

The purpose of the Plan is to foster and promote the long-term financial success of ION Geophysical Corporation (the “**Company**”) and its Subsidiaries and to increase stockholder value by: (a) encouraging the commitment of Directors and selected key Employees and Consultants, (b) motivating superior performance of Directors and key Employees and Consultants by means of long-term performance related incentives, (c) encouraging and providing Directors and selected key Employees and Consultants with a program for obtaining ownership interests in the Company that link and align their personal interests to those of the Company’s stockholders, (d) attracting and retaining Directors and selected key Employees and Consultants by providing competitive incentive compensation opportunities, and (e) enabling Directors and selected key Employees and Consultants to share in the long-term growth and success of the Company. For administrative purposes, and subject to Section 8.13, this Plan incorporates the ION Geophysical Corporation Amended and Restated 1996 Non-Employee Director Stock Option Plan (the “**Director Plan**”).

The Plan provides for payment of various forms of incentive compensation. Except as provided in Section 8.14, it is not intended to be a plan that is subject to the Employee Retirement Income Security Act of 1974, as amended (“**ERISA**”), and, as such, the Plan will be interpreted, construed and administered consistent with its status as a plan that is not subject to ERISA.

This fifth amendment and restatement of the Plan will become effective as of May 26, 2010 (with the Plan having an original effective date of May 3, 2004 (the “**Effective Date**”). The Plan will commence on the Effective Date, and will remain in effect, subject to the right of the Board to amend or terminate the Plan at any time pursuant to Section 8.6, until all Shares subject to the Plan have been purchased or acquired according to its provisions. However, in no event may any Incentive Award be granted under the Plan after ten (10) years from the Effective Date.

1.2 *Definitions*

The following terms shall have the meanings set forth below:

(a) *Appreciation*. The difference between the Fair Market Value of a share of Common Stock on the date of exercise of a Tandem SAR and the option exercise price per share of the Nonstatutory Stock Option to which the Tandem SAR relates.

(b) *Authorized Officer*. The Chairman of the Board, the CEO or any other senior officer of the Company to whom either of them delegate the authority to execute any Incentive Agreement for and on behalf of the Company. No officer or director shall be an Authorized Officer with respect to any Incentive Agreement for himself.

(c) *Board*. The Board of Directors of the Company.

(d) *Cause*. Except as otherwise provided by the Committee or as otherwise provided in a Grantee’s employment agreement, when used in connection with the termination of a Grantee’s Employment or service, shall mean the termination of the Grantee’s Employment or Grantee’s services as a Director or Consultant by the Company or any Subsidiary by reason of (i) the conviction of the Grantee by a court of competent jurisdiction as to which no further appeal can be taken of a crime involving moral turpitude or a felony; (ii) the proven commission by the Grantee of a material act of fraud upon the Company or any Subsidiary, or any customer or supplier thereof; (iii) the willful and proven misappropriation of any funds

or property of the Company or any Subsidiary, or any customer or supplier thereof; (iv) the willful, continued and unreasonable failure by the Grantee to perform the material duties assigned to him which is not cured to the reasonable satisfaction of the Company within 30 days after written notice of such failure is provided to Grantee by the Board or by a designated officer of the Company or a Subsidiary; (v) the knowing engagement by the Grantee in any direct and material conflict of interest with the Company or any Subsidiary without compliance with the Company's or Subsidiary's conflict of interest policy, if any, then in effect; or (vi) the knowing engagement by the Grantee, without the written approval of the Board, in any material activity which competes with the business of the Company or any Subsidiary or which would result in a material injury to the business, reputation or goodwill of the Company or any Subsidiary; or (vii) the material breach by a Consultant of such Grantee's contract with the Company.

(e) CEO. The Chief Executive Officer of the Company.

(f) Change in Control. Any of the events described in and subject to Section 7.7.

(g) Code. The Internal Revenue Code of 1986, as amended, and the regulations and other authority promulgated thereunder by the appropriate governmental authority. References herein to any provision of the Code shall refer to any successor provision thereto.

(h) Committee. A committee appointed by the Board consisting of at least two directors, who fulfill the "outside directors" requirements of Section 162(m) of the Code, to administer the Plan. The Committee may be the Compensation Committee of the Board, or any subcommittee of the Compensation Committee. The Board shall have the power to fill vacancies on the Committee arising by resignation, death, removal or otherwise. The Board, in its sole discretion, may bifurcate the powers and duties of the Committee among one or more separate committees, or retain all powers and duties of the Committee in a single Committee. The members of the Committee shall serve at the discretion of the Board.

(i) Common Stock. The common stock of the Company, \$.01 per value per share, and any class of common stock into which such common shares may hereafter be converted, reclassified, re-capitalized, or exchanged.

(j) Company. ION Geophysical Corporation, a corporation organized under the laws of the State of Delaware, and any successor-in-interest thereto.

(k) Consultant. An independent agent, consultant, attorney, an individual who has agreed to become an Employee within the next six months, or any other individual who is not a Director or employee of the Company (or any Parent or Subsidiary) and who, in the opinion of the Committee, is in a position to contribute to the growth or financial success of the Company (or any Parent or Subsidiary), (ii) is a natural person and (iii) provides bona fide services to the Company (or any Parent or Subsidiary), which services are not in connection with the offer or sale of securities in a capital raising transaction, and do not directly or indirectly promote or maintain a market for the Company's securities.

(l) Covered Employee. A named executive officer who is one of the group of covered employees, as defined in Section 162(m) of the Code and Treasury Regulation § 1.162-27(c) (or its successor), during any such period that the Company is a Publicly Held Corporation.

(m) Deferred Stock. Shares of Common Stock to be issued or transferred to a Grantee under an Other Stock-Based Award granted pursuant to Section 5 at the end of a specified deferral period, as set forth in the Incentive Agreement pertaining thereto.

(n) Director. Any individual who is a member of the Board.

(o) Director Plan. The Amended and Restated 1996 Non-Employee Director Stock Option Plan.

(p) Disability. As determined by the Committee in its discretion exercised in good faith, a physical or mental condition of the Employee that would entitle him to disability income payments under the Company's long term disability insurance policy or plan for employees, as then effective, if any; or in the event that the Grantee is not covered, for whatever reason, under the Company's long-term disability

insurance policy or plan, “Disability” means a permanent and total disability as defined in Section 22(e)(3) of the Code. A determination of Disability may be made by a physician selected or approved by the Committee and, in this respect, the Grantee shall submit to any reasonable examination by such physician upon request.

(q) Employee. Any employee of the Company (or any Parent or Subsidiary) within the meaning of Section 3401(c) of the Code who, in the opinion of the Committee, is in a position to contribute to the growth, development or financial success of the Company (or any Parent or Subsidiary), including, without limitation, officers who are members of the Board.

(r) Employment. Employment by the Company (or any Parent or Subsidiary), or by any corporation issuing or assuming an Incentive Award in any transaction described in Section 424(a) of the Code, or by a parent corporation or a subsidiary corporation of such corporation issuing or assuming such Incentive Award, as the parent-subsidiary relationship shall be determined at the time of the corporate action described in Section 424(a) of the Code. In this regard, neither the transfer of a Grantee from Employment by the Company to Employment by any Parent or Subsidiary, nor the transfer of a Grantee from Employment by any Parent or Subsidiary to Employment by the Company, shall be deemed to be a termination of Employment of the Grantee. Moreover, the Employment of a Grantee shall not be deemed to have been terminated because of an approved leave of absence from active Employment on account of temporary illness, authorized vacation or granted for reasons of professional advancement, education, health, government service or military leave, or during any period required to be treated as a leave of absence by virtue of any applicable statute, Company personnel policy or agreement. Whether an authorized leave of absence shall constitute termination of Employment hereunder shall be determined by the Committee in its discretion. Unless otherwise provided in the Incentive Agreement, the term “Employment” for purposes of the Plan is also defined to include compensatory or advisory services performed by a Consultant for the Company (or any Parent or Subsidiary).

(s) Exchange Act. The Securities Exchange Act of 1934, as amended.

(t) Fair Market Value. While the Company is a Publicly Held Corporation, the Fair Market Value of one share of Common Stock on the date in question is deemed to be the closing sales price on the immediately preceding business day of a share of Common Stock as reported on the New York Stock Exchange or other principal securities exchange on which Shares are then listed or admitted to trading, or as quoted on any national interdealer quotation system, if such shares are not so listed.

(u) Grantee. Any Employee, Director or Consultant who is granted an Incentive Award under the Plan.

(v) Immediate Family. With respect to a Grantee, the Grantee’s child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships.

(w) Incentive Award. A grant of an award under the Plan to a Grantee, including any Nonstatutory Stock Option, Incentive Stock Option, Stock Appreciation Right, Performance Share, Restricted Stock, Restricted Stock Unit or Other Stock-Based Award, as well as any Supplemental Payment.

(x) Incentive Agreement. The written agreement entered into between the Company and the Grantee setting forth the terms and conditions pursuant to which an Incentive Award is granted under the Plan, as such agreement is further defined in Section 7.1 (a).

(y) Incentive Stock Option or ISO. A Stock Option granted by the Committee to an Employee under Section 2 that is designated by the Committee as an Incentive Stock Option and intended to qualify as an Incentive Stock Option under Section 422 of the Code.

(z) Independent SAR. A Stock Appreciation Right described in Section 2.5.

(aa) Insider. While the Company is a Publicly Held Corporation, an individual who is, on the relevant date, an officer, director or ten percent (10%) beneficial owner of any class of the Company’s

equity securities that is registered pursuant to Section 12 of the Exchange Act, all as defined under Section 16 of the Exchange Act.

(bb) Non-Employee Director. A Director who is not an Employee.

(cc) Non-Employee Director Award. Any Nonstatutory Stock Option, SAR, Performance Shares, Restricted Stock, Restricted Stock Unit or Other Stock-Based Award granted, whether singly, in combination, or in tandem, to a Grantee who is a Non-Employee Director pursuant to such applicable terms, conditions, and limitations as the Board or Committee may establish in accordance with this Plan.

(dd) Nonstatutory Stock Option. A Stock Option granted by the Committee to a Grantee under Section 2 that is not designated by the Committee as an Incentive Stock Option or to which Section 421 of the Code does not apply.

(ee) Option Price. The exercise price at which a Share may be purchased by the Grantee of a Stock Option.

(ff) Other Stock-Based Award. An award granted by the Committee to a Grantee under Section 2 that is not a Nonstatutory Stock Option, SAR, Performance Share, Restricted Stock or Restricted Stock Unit and is valued in whole or in part by reference to, or is otherwise based upon, Common Stock.

(gg) Parent. Any corporation (whether now or hereafter existing) that constitutes a "Parent" of the Company, as defined in Section 424(e) of the Code.

(hh) Performance-Based Exception. The performance-based exception from the tax deductibility limitations of Section 162(m) of the Code, as prescribed in Section 162(m) of the Code and Treasury Regulation § 1.162-27(e) (or its successor), which is applicable during such period that the Company is a Publicly Held Corporation.

(ii) Performance Period. A period of time determined by the Committee over which performance is measured for the purpose of determining a Grantee's right to and the payment value of any Performance Share or Other Stock-Based Award.

(jj) Performance Share. An Incentive Award representing a contingent right to receive Shares of Common Stock at the end of a Performance Period.

(kk) Period of Restriction. A period when Restricted Stock or Restricted Stock Units are subject to a substantial risk of forfeiture (based on the passage of time, the achievement of performance goals, or upon the occurrence of other events as determined by the Committee, in its discretion), as provided in Section 4.

(ll) Plan. 2004 Long-Term Incentive Plan, as set forth herein and as it may be amended from time to time.

(mm) Publicly Held Corporation. A corporation issuing any class of common equity securities required to be registered under Section 12 of the Exchange Act.

(nn) Restricted Stock. An Award granted to a Grantee pursuant to Section 4.

(oo) Restricted Stock Unit. An Award granted to a Grantee pursuant to Section 4, except no Shares are actually awarded to the Grantee on the date of grant.

(pp) Retirement. The voluntary termination of Employment from the Company or any Parent or Subsidiary constituting retirement for age on any date after the Employee attains the normal retirement age of 65 years, or such other age as may be designated by the Committee in the Employee's Incentive Agreement.

(qq) intentionally deleted.

(rr) Share. A share of Common Stock of the Company.

(ss) Share Pool. The number of Shares authorized for issuance under Section 1.4 as adjusted for awards and payouts under Section 1.5 and as adjusted for changes in corporate capitalization under Section 7.5.

(tt) Spread. The difference between the exercise price per Share specified in any SAR grant and the Fair Market Value of a Share on the date of exercise of the SAR.

(uu) Stock Appreciation Right or SAR. A Tandem SAR described in Section 2.4 or an Independent SAR described in Section 2.5.

(vv) Stock Option or Option. Pursuant to Section 2 or Section 6, (i) an Incentive Stock Option granted to an Employee, or (ii) a Nonstatutory Stock Option granted to an Employee, Director or Consultant, whereunder such option the Grantee has the right to purchase Shares of Common Stock. In accordance with Section 422 of the Code, only an Employee of the Company, Parent or Subsidiary may be granted an Incentive Stock Option.

(ww) Subsidiary. Any corporation (whether now or hereafter existing) which constitutes a “subsidiary” of the Company, as defined in Section 424(f) of the Code.

(xx) Supplemental Payment. Any amount, as described in Sections 2.6, 3.2 and/or 4.3, that is dedicated to payment of income taxes which are payable by the Grantee resulting from an Incentive Award.

(yy) Tandem SAR. A Stock Appreciation Right that is granted in connection with a related Stock Option pursuant to Section 2.4, the exercise of which shall require forfeiture of the right to purchase a Share under the related Stock Option (and when a Share is purchased under the Stock Option, the Tandem SAR with respect thereto, shall similarly be canceled).

1.3 Plan Administration

(a) Authority of the Committee. Except as may be limited by law and subject to the provisions herein, the Committee shall have full power to (i) select Grantees who shall participate in the Plan; (ii) determine the sizes, duration and types of Incentive Awards; (iii) determine the terms and conditions of Incentive Awards and Incentive Agreements; (iv) determine whether any Shares subject to Incentive Awards will be subject to any restrictions on transfer; (v) construe and interpret the Plan and any Incentive Agreement or other agreement entered into under the Plan; and (vi) establish, amend, or waive rules for the Plan’s administration. Further, the Committee shall make all other determinations which may be necessary or advisable for the administration of the Plan. Notwithstanding the preceding, without the prior approval of the Company’s shareholders, any Stock Option previously granted under the Plan shall not be repriced, replaced, or regranted through cancellation, or by lowering the exercise price of a previously granted option, except as provided in Section 7.5.

(b) Meetings. The Committee shall designate a chairman from among its members who shall preside at all of its meetings, and shall designate a secretary, without regard to whether that person is a member of the Committee, who shall keep the minutes of the proceedings and all records, documents, and data pertaining to its administration of the Plan. Meetings shall be held at such times and places as shall be determined by the Committee and the Committee may hold telephonic meetings.

(c) Decisions Binding. All determinations and decisions made by the Committee shall be made in its discretion pursuant to the provisions of the Plan, and shall be final, conclusive and binding on all persons including the Company, Employees, Directors, Grantees, and their estates and beneficiaries. The Committee’s decisions and determinations with respect to any Incentive Award need not be uniform and may be made selectively among Incentive Awards and Grantees, whether or not such Incentive Awards are similar or such Grantees are similarly situated.

(d) Modification of Outstanding Incentive Awards. Subject to the stockholder approval requirements of Section 8.6 if applicable, the Committee may, in its discretion, provide for the extension of the exercisability of an Incentive Award, accelerate the vesting or exercisability of an Incentive Award, eliminate or make less

restrictive any restrictions contained in an Incentive Award, waive any restriction or other provisions of an Incentive Award, or otherwise amend or modify an Incentive Award in any manner that is either (i) not adverse to the Grantee to whom such Incentive Award was granted or (ii) consented to by such Grantee; *provided, however*, no Stock Option issued under the Plan will be repriced, replaced or regranted through cancellation, or by lowering the Option Price of a previously granted Stock Option, and the period during which a Stock Option may be exercised shall not be extended such that the compensation payable under the Stock Option would be subject to the excise tax applicable under Section 409A of the Code. With respect to an Incentive Award that is an incentive stock option (as described in Section 422 of the Code), no adjustment to such option shall be made to the extent constituting a “modification” within the meaning of Section 424(h)(3) of the Code unless otherwise agreed to by the Grantee in writing.

(e) *Delegation of Authority.* The Committee may delegate to designated officers or other employees of the Company any of its duties and authority under the Plan pursuant to such conditions or limitations as the Committee may establish from time to time; *provided, however*, the Committee may not delegate to any person the authority to (i) grant Incentive Awards, or (ii) take any action which would contravene the requirements of Rule 16b-3 under the Exchange Act or the Performance-Based Exception under Section 162(m) of the Code.

(f) *Expenses of Committee.* The Committee may employ legal counsel, including, without limitation, independent legal counsel and counsel regularly employed by the Company, and other agents, as the Committee may deem appropriate for the administration of the Plan. The Committee may rely upon any opinion or computation received from any such counsel or agent. All expenses incurred by the Committee in interpreting and administering the Plan, including, without limitation, meeting expenses and professional fees, shall be paid by the Company.

(g) *Indemnification.* Each person who is or was a member of the Committee, or of the Board, shall be indemnified by the Company against and from any damage, loss, liability, cost and expense that may be imposed upon or reasonably incurred by him in connection with or resulting from any claim, action, suit, or proceeding to which he may be a party or in which he may be involved by reason of any action taken or failure to act under the Plan, except for any such act or omission constituting willful misconduct or gross negligence. Such person shall be indemnified by the Company for all amounts paid by him in settlement thereof, with the Company’s approval, or paid by him in satisfaction of any judgment in any such action, suit, or proceeding against him, *provided* he shall give the Company an opportunity, at its own expense, to handle and defend the same before he undertakes to handle and defend it on his own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company’s Articles or Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

(h) *Awards in Foreign Countries.* The Board shall have the authority to adopt modifications, procedures, sub-plans, and other similar plan documents as may be necessary or desirable to comply with provisions of the laws of foreign countries in which the Company or its subsidiaries may operate to assure the viability of the benefits of Incentive Awards made to individuals employed or providing services in such countries and to meet the objectives of the Plan.

1.4 *Shares of Common Stock Available for Incentive Awards*

Subject to this Section 1.4 and subject to adjustment under Section 7.5, there shall be available for Incentive Awards that are granted wholly or partly in Common Stock (including rights or Options that may be exercised or settled in Common Stock) 10,200,000 Shares of Common Stock.

The number of Shares of Common Stock that are the subject of Incentive Awards under this Plan, that are forfeited or terminated, expire unexercised, are settled in cash in lieu of Common Stock or in a manner such that all or some of the Shares covered by an Incentive Award are not issued to a Grantee or are exchanged for Incentive Awards that do not involve Common Stock, shall again immediately become available for Incentive Awards hereunder; *provided, however*, the aggregate number of Shares which may be issued upon exercise of ISOs shall in no event exceed 10,200,000 Shares (subject to adjustment pursuant to Section 7.5).

Any Shares of Common Stock reserved for issuance under the Director Plan in excess of the number of Shares as to which Incentive Awards have been awarded thereunder shall no longer be available for grant under the Director Plan after the Effective Date but shall instead be available for grant under the terms and conditions of this Plan. Any Shares as to which Awards granted or issued under the Director Plan that may lapse, expire, terminate, or be cancelled, are settled in cash in lieu of common stock, are tendered (either by actual delivery or attestation) to pay the Option Price, or satisfy any tax withholding requirements shall be deemed available for issuance or reissuance under the preceding paragraph of this Section of the Plan.

Subject to adjustment under Section 7.5 and the limit set forth above, the following additional limits are imposed under the Plan:

(a) The maximum number of Shares that may be covered by Incentive Awards granted to any one individual pursuant to Section 2 (relating to Options and SARs) shall be 10,200,000 Shares during any one calendar-year period. To the extent required by Section 162(m) of the Code, Shares subject to the foregoing limit with respect to which the related Incentive Award described in Section 2 is forfeited, expires, or is canceled shall not again be available for grant under this limit.

(b) For Performance Shares that are intended to qualify for the Performance-Based Exception, no more than 10,200,000 Shares may be delivered to any one Grantee for Performance Periods beginning in any one calendar year, regardless of whether the applicable Performance Period during which the Performance Shares are earned ends in the same year in which it begins or in a later calendar year; provided that Performance Shares described in this paragraph (b) that are intended to qualify for the Performance-Based Exception shall be subject to the following: (i) If the Performance Shares are denominated in Shares but are settled in an equivalent amount of cash, the foregoing limit shall be applied as though the Incentive Award was settled in Shares; and (ii) If delivery of Shares or cash is deferred until after Performance Shares have been earned, any adjustment in the amount delivered to reflect actual or deemed investment experience after the date the shares are earned shall be disregarded.

(c) For Supplemental Payments that are intended to qualify for the Performance-Based Exception, no more than \$2,000,000 may be paid to any one Grantee for Performance Periods beginning in any one calendar year, regardless of whether the applicable Performance Period during which the Supplemental Payment is earned ends in the same year in which it begins or in a later calendar year; provided that Supplemental Payments described in this paragraph (c) that are intended to qualify for the Performance-Based Exception shall be subject to the following: (i) If a Supplemental Payment is denominated in cash but an equivalent amount of Shares is delivered in lieu of delivery of cash, the foregoing limit shall be applied as though the Supplemental Payment was settled in cash; and (ii) if delivery of Shares or cash is deferred until after the Supplemental Payment has been earned, any adjustment in the amount delivered to reflect actual or deemed investment experience after the date the Supplemental Payment is earned shall be disregarded.

1.5 Share Pool Adjustments for Awards and Payouts

The following Incentive Awards and payouts shall reduce, on a one Share for one Share basis, the number of Shares authorized for issuance under the Share Pool:

- (a) Stock Option;
- (b) SAR (except a Tandem SAR);
- (c) A payout of a Performance Share in Shares;
- (d) Restricted Stock or a payout of Restricted Stock Units in Shares; and
- (e) A payout of an Other Stock-Based Award in Shares.

The following transactions shall restore, on a one Share for one Share basis, the number of Shares authorized for issuance under the Share Pool:

- (A) A payout of an SAR or Other Stock-Based Award in the form of cash;

(B) A cancellation, termination, expiration, forfeiture, or lapse for any reason (with the exception of the termination of a Tandem SAR upon exercise of the related Stock Option, or the termination of a related Stock Option upon exercise of the corresponding Tandem SAR) of any Shares subject to an Incentive Award; and

(C) Payment of an Option Price with previously acquired Shares or by withholding Shares which otherwise would be acquired on exercise (i.e., the Share Pool shall be increased by the number of Shares turned in or withheld as payment of the Option Price plus any Shares withheld to pay withholding taxes).

1.6 *Common Stock Available*

The Common Stock available for issuance or transfer under the Plan shall be made available from Shares now or hereafter (a) held in the treasury of the Company, (b) are authorized but unissued, or (c) to be purchased or acquired by the Company. No fractional Shares shall be issued under the Plan; any payment for fractional Shares shall be made in cash.

1.7 *Participation*

(a) *Eligibility.* The Committee shall from time to time designate those key Employees, Directors or Consultants, if any, to be granted Incentive Awards under the Plan, the type and number of Incentive Awards granted, and any other terms or conditions relating to the Incentive Awards as it may deem appropriate to the extent consistent with the provisions of the Plan. A Grantee who has been granted an Incentive Award may, if otherwise eligible, be granted additional Incentive Awards at any time.

(b) *Incentive Stock Option Eligibility.* No Consultant or Non-Employee Director shall be eligible for the grant of any Incentive Stock Option. In addition, no Employee shall be eligible for the grant of any Incentive Stock Option who owns or would own immediately before the grant of such Incentive Stock Option, directly or indirectly, stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company, or any Parent or Subsidiary. This restriction does not apply if, at the time such Incentive Stock Option is granted, the Incentive Stock Option exercise price is at least one hundred and ten percent (110%) of the Fair Market Value on the date of grant and the Incentive Stock Option by its terms is not exercisable after the expiration of five (5) years from the date of grant. For the purpose of the immediately preceding sentence, the attribution rules of Section 424(d) of the Code shall apply for the purpose of determining an Employee's percentage ownership in the Company or any Parent or Subsidiary. This paragraph shall be construed consistent with the requirements of Section 422 of the Code.

1.8 *Types of Incentive Awards*

The types of Incentive Awards under the Plan are Stock Options, Stock Appreciation Rights and Supplemental Payments as described in Section 2, Performance Shares and Supplemental Payments as described in Section 3, Restricted Stock, Restricted Stock Units and Supplemental Payments as described in Section 4, and Other Stock-Based Awards and Supplemental Payments as described in Section 5, and any combination of the foregoing.

SECTION 2

STOCK OPTIONS AND STOCK APPRECIATION RIGHTS

2.1 *Grant of Stock Options*

The Committee is authorized to grant (a) Nonstatutory Stock Options to Employees, Directors or Consultants and (b) Incentive Stock Options to Employees only, in accordance with the terms and conditions of the Plan, and with such additional terms and conditions, not inconsistent with the Plan, as the Committee shall determine in its discretion. Successive grants may be made to the same Grantee whether or not any Stock Option previously granted to such person remains unexercised.

2.2 Stock Option Terms

(a) Written Agreement. Each grant of a Stock Option shall be evidenced by a written Incentive Agreement. Among its other provisions, each Incentive Agreement shall set forth, subject to Section 422 of the Code, the extent to which the Grantee shall have the right to exercise the Stock Option following termination of the Grantee's Employment. Such provisions shall be determined in the discretion of the Committee, shall be included in the Grantee's Incentive Agreement, and need not be uniform among all Stock Options issued pursuant to the Plan. In addition, Incentive Agreement shall state whether the Stock Option is intended to meet the requirements of Section 422 of the Code.

(b) Number of Shares. Each Stock Option shall specify the number of Shares of Common Stock to which it pertains.

(c) Exercise Price. The exercise price per Share of Common Stock under each Stock Option shall be determined by the Committee; *provided, however*, that in the case of a Stock Option, such exercise price shall not be less than 100% of the Fair Market Value per Share on the date the Stock Option is granted (110% in the case of an Incentive Stock Option for 10% or greater shareholders pursuant to Section 1.7(b)). Each Stock Option shall specify the method of exercise, which shall be consistent with the requirements of Section 2.3(a).

(d) Term. In the Incentive Agreement, the Committee shall fix the term of each Stock Option, which shall be not more than ten (10) years from the date of grant (five years for ISO grants to 10% or greater shareholders pursuant to Section 1.7(b)). In the event no term is fixed, such term shall be ten (10) years from the date of grant.

(e) Exercise. The Committee shall determine the time or times at which a Stock Option may be exercised in whole or in part. Each Stock Option may specify the required period of continuous Employment and/or the performance objectives to be achieved before the Stock Option or portion thereof will become exercisable. Each Stock Option, the exercise of which, or the timing of the exercise of which, is dependent, in whole or in part, on the achievement of designated performance objectives, may specify a minimum level of achievement in respect of the specified performance objectives below which no Stock Options will be exercisable and a method for determining the number of Stock Options that will be exercisable if performance is at or above such minimum but short of full achievement of the performance objectives. All such terms and conditions shall be set forth in the Incentive Agreement.

(f) \$100,000 Annual Limit on Incentive Stock Options. Notwithstanding any contrary provision in the Plan, to the extent that the aggregate Fair Market Value (determined as of the time the Incentive Stock Option is granted) of the Shares of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Grantee during any single calendar year (under the Plan and any other stock option plans of the Company and its Subsidiaries or Parent) exceeds the sum of \$100,000, such Incentive Stock Option shall be treated as a Nonstatutory Stock Option to the extent in excess of the \$100,000 limit, and not an Incentive Stock Option, but all other terms and provisions of such Stock Option shall remain unchanged. This paragraph shall be applied by taking Incentive Stock Options into account in the order in which they were granted and shall be construed in accordance with Section 422(d) of the Code. In the absence of such regulations or other authority, or if such regulations or other authority require or permit a designation of the Options which shall cease to constitute Incentive Stock Options, then such Incentive Stock Options, only to the extent of such excess, shall automatically be deemed to be Nonstatutory Stock Options but all other terms and conditions of such Incentive Stock Options, and the corresponding Incentive Agreement, shall remain unchanged.

2.3 Stock Option Exercises

(a) Method of Exercise and Payment. Stock Options shall be exercised by the delivery of a signed written notice of exercise to the Company as of a date set by the Company in advance of the effective date of the proposed exercise. The notice shall set forth the number of Shares with respect to which the Option is to be exercised.

The Option Price upon exercise of any Stock Option shall be payable to the Company in full either: (i) in cash or its equivalent, or (ii) by tendering previously acquired Shares having an aggregate Fair Market Value at the time of exercise equal to the Option Price, or (iii) by withholding Shares which otherwise would be acquired on exercise having an aggregate Fair Market Value at the time of exercise equal to the total Option Price, or (iv) by any combination of (i), (ii), and (iii) above. Any payment in Shares shall be effected by surrender of such Shares to the Company in good form for transfer and shall be valued at their Fair Market Value on the date when the Stock Option is exercised. The Company shall not withhold shares, and the Grantee shall not surrender, or attest to the ownership of, Shares in payment of the Option Price if such action would cause the Company to recognize compensation expense (or additional compensation expense) with respect to the Stock Option for financial reporting purposes.

While the Company is a Publicly Held Corporation, the Committee may also allow the Option Price to be paid with such other consideration as shall constitute lawful consideration for the issuance of Shares (including, without limitation, effecting a “cashless exercise” with a broker or dealer), subject to applicable securities law restrictions and tax withholdings, or by any other means which the Committee determines to be consistent with the Plan’s purpose and applicable law.

As soon as practicable after receipt of a written notification of exercise and full payment, the Company shall deliver, or cause to be delivered, to or on behalf of the Grantee, in the name of the Grantee or other appropriate recipient, Share certificates for the number of Shares purchased under the Stock Option. Such delivery shall be effected for all purposes when the Company or a stock transfer agent of the Company shall have deposited such certificates in the United States mail, addressed to Grantee or other appropriate recipient.

Subject to Section 7.2 during the lifetime of a Grantee, each Option granted to him shall be exercisable only by the Grantee (or his legal guardian or personal representative in the event of his Disability) or by a broker or dealer acting on his behalf pursuant to a cashless exercise under the foregoing provisions of this Section 2.3(a).

(b) Restrictions on Share Transferability. The Committee may impose such restrictions on any Shares acquired pursuant to the exercise of a Stock Option as it may deem advisable, including, without limitation, restrictions under (i) any stockholders’ agreement, buy/sell agreement, right of first refusal, non-competition, and any other agreement between the Company and any of its securities holders or employees, (ii) any applicable federal securities laws, (iii) the requirements of any stock exchange or market upon which such Shares are then listed and/or quoted, or (iv) any blue sky or state securities law applicable to such Shares. Any certificate issued to evidence Shares issued upon the exercise of an Incentive Award may bear such legends and statements as the Committee shall deem advisable to assure compliance with federal and state laws and regulations.

Any Grantee or other person exercising an Incentive Award may be required by the Committee to give a written representation that the Incentive Award and the Shares subject to the Incentive Award will be acquired for investment and not with a view to public distribution; *provided, however*, that the Committee, in its sole discretion, may release any person receiving an Incentive Award from any such representations either prior to or subsequent to the exercise of the Incentive Award.

(c) Notification of Disqualifying Disposition of Shares from Incentive Stock Options. Notwithstanding any other provision of the Plan, a Grantee who disposes of Shares of Common Stock acquired upon the exercise of an Incentive Stock Option by a sale or exchange either (i) within two (2) years after the date of the grant of the Incentive Stock Option under which the Shares were acquired or (ii) within one (1) year after the transfer of such Shares to him pursuant to exercise, shall promptly notify the Company of such disposition, the amount realized and his adjusted basis in such Shares.

(d) Proceeds of Option Exercise. The proceeds received by the Company from the sale of Shares pursuant to Stock Options exercised under the Plan shall be used for general corporate purposes.

(e) Information Required in Connection with Exercise of Incentive Stock Option. The Company shall provide the Grantee with a written statement required by Section 6039 of the Code no later than January 31 of

the year following the calendar year during which the Grantee exercises an Option that is intended to be an Incentive Stock Option.

2.4 Stock Appreciation Rights in Tandem with Nonstatutory Stock Options

(a) *Grant.* The Committee may, at the time of grant of a Nonstatutory Stock Option, or at any time thereafter during the term of the Nonstatutory Stock Option, grant Stock Appreciation Rights with respect to all or any portion of the Shares of Common Stock covered by such Nonstatutory Stock Option. A Stock Appreciation Right in tandem with a Nonstatutory Stock Option is referred to herein as a “Tandem SAR.”

(b) *General Provisions.* The terms and conditions of each Tandem SAR shall be evidenced by an Incentive Agreement. The Option Price per Share of a Tandem SAR shall be fixed in the Incentive Agreement and shall not be less than one hundred percent (100%) of the Fair Market Value of a Share on the grant date of the Nonstatutory Stock Option to which it relates.

(c) *Exercise.* A Tandem SAR may be exercised at any time the Nonstatutory Stock Option to which it relates is then exercisable, but only to the extent such Nonstatutory Stock Option is exercisable, and shall otherwise be subject to the conditions applicable to such Nonstatutory Stock Option. When a Tandem SAR is exercised, the Nonstatutory Stock Option to which it relates shall terminate to the extent of the number of Shares with respect to which the Tandem SAR is exercised. Similarly, when a Nonstatutory Stock Option is exercised, the Tandem SARs relating to the Shares covered by such Nonstatutory Stock Option exercise shall terminate.

(d) *Settlement.* Upon exercise of a Tandem SAR, the holder shall receive, for each Share specified in the Tandem SAR grant, an amount equal to the Appreciation. The Appreciation shall be payable in cash, Common Stock, or a combination of both, as specified in the Incentive Agreement. The Appreciation shall be paid within 30 calendar days of the exercise of the Tandem SAR. If the Appreciation is to be paid in Common Stock or cash only, the resulting shares or cash shall be determined dividing (1) by (2), where (1) is the number of Shares as to which the Tandem SAR is exercised multiplied by the Appreciation in such shares and (2) is the Fair Market Value of a Share on the exercise date. If a portion of the Appreciation is to be paid in Shares, the Share amount shall be determined by calculating the amount of cash payable pursuant to the preceding sentence then by dividing (1) as defined herein, minus the amount of cash payable, by (2) as defined herein.

2.5 Stock Appreciation Rights Independent of Nonstatutory Stock Options

(a) *Grant.* The Committee may grant Stock Appreciation Rights independent of Nonstatutory Stock Options (“Independent SARs”).

(b) *General Provisions.* The terms and conditions of each Independent SAR shall be evidenced by an Incentive Agreement. The exercise price per share of Common Stock shall be not less than one hundred percent (100%) of the Fair Market Value of a Share of Common Stock on the date of grant of the Independent SAR. The term of an Independent SAR shall be determined by the Committee.

(c) *Exercise.* Independent SARs shall be exercisable at such time and subject to such terms and conditions as the Committee shall specify in the Incentive Agreement for the Independent SAR grant.

(d) *Settlement.* Upon exercise of an Independent SAR, the holder shall receive, for each Share specified in the Independent SAR grant, an amount equal to the Spread. The Spread shall be payable in cash, Common Stock, or a combination of both, as specified in the Incentive Agreement. The Spread shall be paid within 30 calendar days of the exercise of the Independent SAR. If the Spread is to be paid in Common Stock or cash only, the resulting shares or cash shall be determined by dividing (1) by (2), where (1) is the number of Shares as to which the Independent SAR is exercised multiplied by the Spread in such Shares and (2) is the Fair Market Value of a Share on the exercise date. If a portion of the Spread is to be paid in Shares, the Share amount shall be determined by calculating the amount of cash payable pursuant to the preceding sentence then by dividing (1) as defined herein, minus the amount of cash payable, by (2) as defined herein.

2.6 Supplemental Payment on Exercise of Nonstatutory Stock Options or Stock Appreciation Rights

The Committee, either at the time of grant or as of the time of exercise of any Nonstatutory Stock Option or Stock Appreciation Right, may provide in the Incentive Agreement for a Supplemental Payment by the Company to the Grantee with respect to the exercise of any Nonstatutory Stock Option or Stock Appreciation Right. The Supplemental Payment shall be in the amount specified by the Committee, which amount shall not exceed the amount necessary to pay the federal and state income tax payable with respect to both the exercise of the Nonstatutory Stock Option and/or Stock Appreciation Right and the receipt of the Supplemental Payment, assuming the holder is taxed at either the maximum effective income tax rate applicable thereto or at a lower tax rate as deemed appropriate by the Committee. The Committee shall have the discretion to grant Supplemental Payments that are payable solely in cash or Supplemental Payments that are payable in cash, Common Stock, or a combination of both, as determined by the Committee at the time of payment.

SECTION 3

PERFORMANCE SHARES

3.1 Performance Based Awards

(a) Grant. The Committee is authorized to grant Performance Shares to selected Grantees who are Employees or Consultants. Each grant of Performance Shares shall be evidenced by an Incentive Agreement in such amounts and upon such terms as shall be determined by the Committee. The Committee may make grants of Performance Shares in such a manner that more than one Performance Period is in progress concurrently. For each Performance Period, the Committee shall establish the number of Performance Shares and their contingent values which may vary depending on the degree to which performance criteria established by the Committee are met.

(b) Performance Criteria.

(i) The grant of Performance Shares shall be subject to such conditions, restrictions and contingencies, as determined by the Committee.

(ii) The Committee may designate a grant of Performance Shares to any Grantee as intended to qualify for the Performance-Based Exception. To the extent required by Code section 162(m), any grant of Performance Shares so designated shall be conditioned on the achievement of one or more performance goals, subject to the following:

(A) The performance goals shall be based upon criteria in one or more of the following categories: performance of the Company as a whole, performance of a segment of the Company's business, and individual performance. Performance criteria for the Company shall relate to the achievement of predetermined financial objectives for the Company and its Subsidiaries on a consolidated basis. Performance criteria for a segment of the Company's business shall relate to the achievement of financial and operating objectives of the segment for which the Grantee is accountable.

(B) Performance criteria shall include pre-tax or after-tax profit levels, including: earnings per share, earnings before interest and taxes, earnings before interest, taxes, depreciation and amortization, net operating profits after tax, and net income; total shareholder return; return on assets, equity, capital or investment; cash flow and cash flow return on investment; economic value added and economic profit; growth in earnings per share; levels of operating expense and maintenance expense; or measures of customer satisfaction and customer service, as determined from time to time including the relative improvement therein.

(C) Individual performance criteria shall relate to a Grantee's overall performance, taking into account, among other measures of performance, the attainment of individual goals and objectives. The performance goals may differ among Grantees.

(c) Modification. If the Committee determines, in its discretion exercised in good faith, that the established performance measures or objectives are no longer suitable to the Company's objectives because of

a change in the Company's business, operations, corporate structure, capital structure, or other conditions the Committee deems to be appropriate, the Committee may modify the performance measures and objectives to the extent it considers to be necessary. However, if any Performance Shares are designated as intended to qualify for the Performance-Based Exception, no such modification shall be made to the extent the modification would otherwise cause the Performance Shares to not qualify for the Performance-Based Exception.

(d) *Payment.* The basis for payment of Performance Shares for a given Performance Period shall be the achievement of those performance objectives determined by the Committee at the beginning of the Performance Period as specified in the Grantee's Incentive Agreement. If minimum performance is not achieved for a Performance Period, no payment shall be made and all contingent rights shall cease. If minimum performance is achieved or exceeded, the number of Performance Shares may be based on the degree to which actual performance exceeded the pre-established minimum performance standards. The amount of payment shall be determined by multiplying the number of Performance Shares granted at the beginning of the Performance Period times the final Performance Share value. Payments shall be made in cash or Common Stock in the discretion of the Committee as specified in the Incentive Agreement.

(e) *Special Rule for Covered Employees.* No later than the ninetieth (90th) day following the beginning of a Performance Period (or twenty-five percent (25%) of the Performance Period) the Committee shall establish performance goals as described in Section 3.1(b) applicable to Performance Shares awarded to Covered Employees in such a manner as shall permit payments with respect thereto to qualify for the Performance-Based Exception, if applicable. If a Performance Share granted to a Covered Employee is intended to comply with the Performance-Based Exception, the Committee in establishing performance goals shall comply with Treasury Regulation § 1.162-27(e)(2) (or its successor). As soon as practicable following the Company's determination of the Company's financial results for any Performance Period, the Committee shall certify in writing: (i) whether the Company achieved its minimum performance for the objectives for the Performance Period, (ii) the extent to which the Company achieved its performance objectives for the Performance Period, (iii) any other terms that are material to the grant of Performance Shares, and (iv) the calculation of the payments, if any, to be paid to each Grantee for the Performance Period.

3.2 *Supplemental Payment on Vesting of Performance Shares*

The Committee, either at the time of grant or at the time of vesting of Performance Shares, may provide for a Supplemental Payment by the Company to the Grantee in an amount specified by the Committee, which amount shall not exceed the amount necessary to pay the federal and state income tax payable with respect to both the vesting of such Performance Shares and receipt of the Supplemental Payment, assuming the Grantee is taxed at either the maximum effective income tax rate applicable thereto or at a lower tax rate as seemed appropriate by the Committee. The Committee shall have the discretion to grant Supplemental Payments that are payable in Common Stock.

SECTION 4

RESTRICTED STOCK AND RESTRICTED STOCK UNITS

4.1 *Grant of Restricted Stock or Restricted Stock Units*

Subject to the terms and provisions of the Plan, the Committee, at any time and from time to time, may grant Restricted Stock and/or Restricted Stock Units to Grantees in such amounts as the Committee shall determine. Restricted Stock Units shall be similar to Restricted Stock except that no Shares are actually awarded to the Grantee on the date of grant.

4.2 *Restricted Stock Award or Restricted Stock Unit Award Terms*

(a) *Written Agreement.* The terms and conditions of each grant of Restricted Stock Award and/or Restricted Stock Unit Award shall be evidenced by an Incentive Agreement that shall specify the Period(s) of Restriction, the number of shares of Restricted Stock or the number of Restricted Stock Units granted, and such other provisions as the Committee shall determine.

(b) Transferability. Except as provided in this Plan or an Incentive Agreement, Restricted Stock and/or Restricted Stock Units granted herein may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction established by the Committee and specified in the Incentive Agreement (and in the case of Restricted Stock Units until the date of delivery or other payment), or upon earlier satisfaction of any other conditions, as specified by the Committee, in its sole discretion, and set forth in the Incentive Agreement or otherwise at any time by the Committee. All rights with respect to the Restricted Stock and/or Restricted Stock Units granted to a Grantee under the Plan shall be available during his lifetime only to such Grantee, except as otherwise provided in an Incentive Agreement or at any time by the Committee.

(c) Other Restrictions. The Committee shall impose such other conditions and/or restrictions on any Restricted Stock or Restricted Stock Units granted pursuant to the Plan as it may deem advisable including, without limitation, a requirement that Grantees pay a stipulated purchase price for each Share of Restricted Stock or each Restricted Stock Unit, restrictions based upon the achievement of specific performance goals, time-based restrictions on vesting following the attainment of the performance goals, time-based restrictions, and/or restrictions under applicable laws or under the requirements of any stock exchange or market upon which such Shares are listed or traded, or holding requirements or sale restrictions placed on the Shares by the Company upon vesting of such Restricted Stock or Restricted Stock Units.

To the extent deemed appropriate by the Committee, the Company may retain the certificates representing shares of Restricted Stock in the Company's possession until such time as all conditions and/or restrictions applicable to such shares have been satisfied or lapse.

Except as otherwise provided in this Section 4, shares of Restricted Stock covered by each Restricted Stock Award shall become freely transferable by the Grantee after all conditions and restrictions applicable to such shares have been satisfied or lapse (including satisfaction of any applicable tax withholding obligations) at the close of the Period of Restriction (but no later than 2½ months following the end of the year that contains the close of the Period of Restriction), or as soon as practicable thereafter. Restricted Stock Units shall be paid in cash, Shares, or a combination of cash and Shares as the Committee, in its sole discretion shall determine.

(d) Certificate Legend. In addition to any legends placed on certificates pursuant to Section 7.1(c), each certificate representing Restricted Stock granted pursuant to the Plan may bear a legend such as the following or as otherwise determined by the Committee in its sole discretion:

THE SALE OR TRANSFER OF SHARES OF STOCK REPRESENTED BY THIS CERTIFICATE, WHETHER VOLUNTARY, INVOLUNTARY, OR BY OPERATION OF LAW, IS SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AS SET FORTH IN THE FIFTH AMENDED AND RESTATED 2004 LONG-TERM INCENTIVE PLAN, AND IN THE ASSOCIATED INCENTIVE AGREEMENT. A COPY OF THE PLAN AND SUCH INCENTIVE AGREEMENT MAY BE OBTAINED FROM ION GEOPHYSICAL CORPORATION.

(e) Voting Rights. Unless otherwise determined by the Committee or as otherwise set forth in a Grantee's Incentive Agreement, to the extent permitted or required by law, as determined by the Committee, Grantees holding shares of Restricted Stock granted hereunder may be granted the right to exercise full voting rights with respect to those shares during the Period of Restriction. A Grantee shall have no voting rights with respect to any Restricted Stock Units granted hereunder.

(f) Termination of Employment. Each Incentive Agreement shall set forth the extent to which the Grantee shall have the right to retain Restricted Stock and/or Restricted Stock Units following termination of the Grantee's employment with or provision of services to the Company, its Affiliates, and/or its Subsidiaries, as the case may be. Such provisions shall be determined in the sole discretion of the Committee, shall be included in the Incentive Agreement entered into with each Grantee, need not be uniform among all Shares of Restricted Stock or Restricted Stock Units issued pursuant to the Plan, and may reflect distinctions based on the reasons for termination.

(g) Section 83(b) Election. The Committee may provide in an Incentive Agreement that the Award of Restricted Stock is conditioned upon the Grantee making or refraining from making an election with respect to the Award under Section 83(b) of the Code. If a Grantee makes an election pursuant to Section 83(b) of the

Code concerning a Restricted Stock Award, the Grantee shall be required to file promptly a copy of such election with the Company.

4.3 *Supplemental Payment on Vesting of Restricted Stock and Restricted Stock Units*

The Committee, either at the time of grant or at the time of vesting of Restricted Stock or Restricted Stock Units, may provide for a Supplemental Payment by the Company to the Grantee in an amount specified by the Committee, which amount shall not exceed the amount necessary to pay the federal and state income tax payable with respect to both the vesting of such Restricted Stock or Restricted Stock Units and receipt of the Supplemental Payment, assuming the Grantee is taxed at either the maximum effective income tax rate applicable thereto or at a lower tax rate as seemed appropriate by the Committee. The Committee shall also have the discretion to grant Supplemental Payments that are payable in Common Stock.

SECTION 5

OTHER STOCK-BASED AWARDS

5.1 *Grant of Other Stock-Based Awards*

Other Stock-Based Awards may be awarded by the Committee to selected Grantees that are denominated or payable in, valued in whole or in part by reference to, or otherwise related to, Shares of Common Stock, as deemed by the Committee to be consistent with the purposes of the Plan and the goals of the Company. Other types of Stock-Based Awards include, without limitation, Deferred Stock, purchase rights, Shares of Common Stock awarded which are not subject to any restrictions or conditions, convertible or exchangeable debentures, other rights convertible into Shares, Incentive Awards valued by reference to the value of securities of or the performance of a specified Subsidiary, division or department, and settlement in cancellation of rights of any person with a vested interest in any other plan, fund, program or arrangement that is or was sponsored, maintained or participated in by the Company or any Parent or Subsidiary. As is the case with other Incentive Awards, Other Stock-Based Awards may be awarded either alone or in addition to or in tandem with any other Incentive Awards.

5.2 *Other Stock-Based Award Terms*

(a) *Written Agreement.* The terms and conditions of each grant of an Other Stock-Based Award shall be evidenced by an Incentive Agreement.

(b) *Purchase Price.* Except to the extent that an Other Stock-Based Award is granted in substitution for an outstanding Incentive Award or is delivered upon exercise of a Stock Option, the amount of consideration required to be received by the Company shall be either (i) no consideration other than services actually rendered (in the case of authorized and unissued shares) or to be rendered, or (ii) in the case of an Other Stock-Based Award in the nature of a purchase right, consideration (other than services rendered or to be rendered) at least equal to 50% of the Fair Market Value of the Shares covered by such grant on the date of grant (or such percentage higher than 50% that is required by any applicable tax or securities law).

(c) *Performance Criteria and Other Terms.* In its discretion, the Committee may specify such criteria, periods or goals for vesting in Other Stock-Based Awards and payment thereof to the Grantee as it shall determine; and the extent to which such criteria, periods or goals have been met shall be determined by the Committee. All terms and conditions of Other Stock-Based Awards shall be determined by the Committee and set forth in the Incentive Agreement. The Committee may also provide for a Supplemental Payment similar to such payment as described in Section 4.3.

(d) *Payment.* Other Stock-Based Awards may be paid in Shares of Common Stock or other consideration related to such Shares, in a single payment or in installments on such dates as determined by the Committee, all as specified in the Incentive Agreement.

(e) *Dividends.* The Grantee of an Other Stock-Based Award may be entitled to receive, currently or on a deferred basis, dividends or dividend equivalents with respect to the number of Shares covered by the Other Stock-Based Award, as determined by the Committee and set forth in the Incentive Agreement. The

Committee may also provide in the Incentive Agreement that such amounts (if any) shall be deemed to have been reinvested in additional Shares of Common Stock.

SECTION 6

PROVISIONS RELATING TO NON-EMPLOYEE DIRECTOR AWARDS

6.1 *Generally*

All Awards to Non-Employee Directors shall be determined by the Board or Committee.

6.2 *Vesting Period*

Unless the Committee shall otherwise prescribe or as otherwise specified in an applicable Incentive Agreement, each Incentive Award granted to a Non-Employee Director shall vest as follows:

- (a) each Incentive Award granted to a Non-Employee Director under the Plan during his initial year of service as a Non-Employee Director, if any, shall vest in 33.33% consecutive annual installments on the first, second and third anniversary dates of the date of grant of each such Incentive Award;
- (b) each Incentive Award granted to a Non-Employee Director under the Plan during his second full year of service as a Non-Employee Director, if any, shall vest in 50% consecutive annual installments on the first and second anniversary dates of the Date of Grant of each such Incentive Award;
- (c) each Incentive Award granted to a Non-Employee Director under the Plan during his third full year of service as a Non-Employee Director, if any, shall fully vest on the first anniversary date of the date of grant of each such Incentive Award; and
- (d) each Incentive Award granted to a Non-Employee Director following the completion of his third full year of service as a Non-Employee Director, if any, shall be fully vested on the date of grant.

SECTION 7

PROVISIONS RELATING TO PLAN PARTICIPATION

7.1 *Plan Conditions*

(a) *Incentive Agreement.* Each Grantee to whom an Incentive Award is granted shall be required to enter into an Incentive Agreement with the Company, in such a form as is provided by the Committee. The Incentive Agreement shall contain specific terms as determined by the Committee, in its discretion, with respect to the Grantee's particular Incentive Award. Such terms need not be uniform among all Grantees or any similarly-situated Grantees. The Incentive Agreement may include, without limitation, vesting, forfeiture and other provisions particular to the particular Grantee's Incentive Award, as well as, for example, provisions to the effect that the Grantee (i) shall not disclose any confidential information acquired during Employment with the Company, (ii) shall abide by all the terms and conditions of the Plan and such other terms and conditions as may be imposed by the Committee, (iii) shall not interfere with the employment or other service of any employee, (iv) shall not compete with the Company or become involved in a conflict of interest with the interests of the Company, (v) shall forfeit an Incentive Award as determined by the Committee (including if terminated for Cause), (vi) shall not be permitted to make an election under Section 83(b) of the Code when applicable, and (vii) shall be subject to any other agreement between the Grantee and the Company regarding Shares that may be acquired under an Incentive Award including, without limitation, a stockholders' agreement or other agreement restricting the transferability of Shares by Grantee. An Incentive Agreement shall include such terms and conditions as are determined by the Committee, in its discretion, to be appropriate with respect to any individual Grantee. The Incentive Agreement shall be signed by the Grantee to whom the Incentive Award is made and by an Authorized Officer.

(b) *No Right to Employment.* Nothing in the Plan or any instrument executed pursuant to the Plan shall create any Employment rights or right to serve on the Board (including without limitation, rights to continued

Employment or to continue to provide services as a Director or Consultant) by any Grantee or affect the right of the Company to terminate the Employment or services of any Grantee at any time without regard to the existence of the Plan.

(c) *Securities Requirements.* The Company shall be under no obligation to effect the registration pursuant to the Securities Act of 1933 of any Shares of Common Stock to be issued hereunder or to effect similar compliance under any state laws. Notwithstanding anything herein to the contrary, the Company shall not be obligated to cause to be issued or delivered any certificates evidencing Shares pursuant to the Plan unless and until the Company is advised by its counsel that the issuance and delivery of such certificates is in compliance with all applicable laws, regulations of governmental authorities, and the requirements of any securities exchange or national quotation system on which Shares are traded or quoted. The Committee may require, as a condition of the issuance and delivery of certificates evidencing Shares of Common Stock pursuant to the terms hereof, that the recipient of such Shares make such covenants, agreements and representations, and that such certificates bear such legends, as the Committee, in its discretion, deems necessary or desirable.

If the Shares issuable on exercise of an Incentive Award are not registered under the Securities Act of 1933, the Company may imprint on the certificate for such Shares the following legend or any other legend which counsel for the Company considers necessary or advisable to comply with the Securities Act of 1933:

THE SHARES OF STOCK REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR UNDER THE SECURITIES LAWS OF ANY STATE AND MAY NOT BE SOLD OR TRANSFERRED EXCEPT UPON SUCH REGISTRATION OR UPON RECEIPT BY THE CORPORATION OF AN OPINION OF COUNSEL SATISFACTORY TO THE CORPORATION, IN FORM AND SUBSTANCE SATISFACTORY TO THE CORPORATION, THAT REGISTRATION IS NOT REQUIRED FOR SUCH SALE OR TRANSFER.

7.2 *Transferability*

Incentive Awards granted under the Plan shall not be transferable or assignable, pledged, or otherwise encumbered other than by will or the laws of descent and distribution. However, only with respect to Incentive Awards that are not Incentive Stock Options, the Committee may, in its discretion, authorize all or a portion of the Nonstatutory Stock Options to be granted on terms which permit transfer by the Grantee to (i) the members of the Grantee's Immediate Family, (ii) a trust or trusts for the exclusive benefit of Immediate Family members, (iii) a partnership in which Immediate Family members are the only partners, (iv) any other entity owned solely by Immediate Family members, or (v) pursuant to a domestic relations order that would qualify under Code Section 414(p); *provided* that (A) the Incentive Agreement pursuant to which such Nonstatutory Stock Options are granted must expressly provide for transferability in a manner consistent with this Section 7.2, (B) the actual transfer must be approved in advance by the Committee, and (C) subsequent transfers of transferred Nonstatutory Stock Options shall be prohibited except in accordance with the first sentence of this section. Following any permitted transfer, the Nonstatutory Stock Option shall continue to be subject to the same terms and conditions as were applicable immediately prior to transfer, *provided* that the term "Grantee" (subject to the immediately succeeding paragraph) shall be deemed to refer to the transferee. The events of termination of employment, as set out in Section 7.6 and in the Incentive Agreement, shall continue to be applied with respect to the original Grantee, and the Incentive Award shall be exercisable by the transferee only to the extent, and for the periods, specified in the Incentive Agreement.

Except as may otherwise be permitted under the Code, in the event of a permitted transfer of a Nonstatutory Stock Option hereunder, the original Grantee shall remain subject to withholding taxes upon exercise. In addition, the Company and the Committee shall have no obligation to provide any notices to any Grantee or transferee thereof, including, for example, notice of the expiration of an Incentive Award following the original Grantee's termination of employment.

The designation by a Grantee of a beneficiary of an Incentive Award shall not constitute a transfer of the Incentive Award. No transfer by will or by the laws of descent and distribution shall be effective to bind the Company unless the Committee has been furnished with a copy of the deceased Grantee's enforceable will or such other evidence as the Committee deems necessary to establish the validity of the transfer. Any attempted

transfer in violation of this Section 7.2 shall be void and ineffective. The Committee in its discretion shall make all determinations under this Section 7.2.

7.3 Rights as a Stockholder

(a) No Stockholder Rights. Except as otherwise set forth in Section 4, a Grantee of an Incentive Award (or a permitted transferee of such Grantee) shall have no rights as a stockholder with respect to any Shares of Common Stock until the issuance of a stock certificate for such Shares.

(b) Representation of Ownership. In the case of the exercise of an Incentive Award by a person or estate acquiring the right to exercise such Incentive Award by reason of the death or Disability of a Grantee, the Committee may require reasonable evidence as to the ownership of such Incentive Award or the authority of such person and may require such consents and releases of taxing authorities as the Committee may deem advisable.

7.4 Listing and Registration of Shares of Common Stock

The exercise of any Incentive Award granted hereunder shall only be effective at such time as counsel to the Company shall have determined that the issuance and delivery of Shares of Common Stock pursuant to such exercise is in compliance with all applicable laws, regulations of governmental authorities and the requirements of any securities exchange or quotation system on which Shares of Common Stock are traded or quoted. The Committee may, in its discretion, elect to suspend the right to exercise any Incentive Award during any Company-imposed employee “blackout” stock trading period that is necessary or desirable to comply with requirements of such laws, regulations or requirements. The Committee may also, in its discretion, elect to extend the period for exercise of any Incentive Award to reflect any such “blackout” period. The Committee may, in its discretion, defer the effectiveness of any exercise of an Incentive Award in order to allow the issuance of Shares of Common Stock to be made pursuant to registration or an exemption from registration or other methods for compliance available under federal or state securities laws. The Committee shall inform the Grantee in writing of its decision to defer the effectiveness of the exercise of an Incentive Award.

7.5 Change in Stock and Adjustments

(a) Changes in Law. Subject to Section 7.7 (which only applies in the event of a Change of Control), in the event of any change in applicable law which warrants equitable adjustment because it interferes with the intended operation of the Plan, then, if the Committee should determine, in its absolute discretion, that such change equitably requires an adjustment in the number or kind of shares of stock or other securities or property theretofore subject, or which may become subject, to issuance or transfer under the Plan or in the terms and conditions of outstanding Incentive Awards, such adjustment shall be made in accordance with such determination. Such adjustments may include changes with respect to (i) the aggregate number of Shares that may be issued under the Plan, (ii) the number of Shares subject to Incentive Awards, and (iii) the price per Share for outstanding Incentive Awards. Any adjustment under this paragraph of an outstanding Incentive Stock Option shall be made only to the extent not constituting a “modification” within the meaning of Section 424(h)(3) of the Code unless otherwise agreed to by the Grantee in writing. The Committee shall give notice to each applicable Grantee of such adjustment, which shall be effective and binding.

(b) Exercise of Corporate Powers. The existence of the Plan or outstanding Incentive Awards hereunder shall not affect in any way the right or power of the Company or its stockholders to make or authorize any or all adjustments, re-capitalizations, reorganizations or other changes in the Company’s capital structure or its business or any merger or consolidation of the Company, or any issue of bonds, debentures, preferred or prior preference stocks ahead of or affecting the Common Stock or the rights thereof, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding whether of a similar character or otherwise.

(c) Recapitalization of the Company. Subject to Section 7.7 (which only applies in the event of a Change in Control), in the event that the Committee shall determine that any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), re-capitalization, stock split,

reverse stock split, rights offering, reorganization, merger, consolidation, split-up, spin-off, split-off, combination, subdivision, repurchase, or exchange of Common Stock or other securities of the Company, issuance of warrants or other rights to purchase Common Stock or other securities of the Company, or other similar corporate transaction or event affects the Common Stock such that an adjustment is determined by the Committee to be appropriate to prevent the dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan, then the Committee shall, in such manner as it deems equitable, adjust any or all of (i) the number of shares and type of Common Stock (or the securities or property) which thereafter may be made the subject of Incentive Awards, (ii) the number of shares and type of Common Stock (or other securities or property) subject to outstanding Incentive Awards, (iii) the number of shares and type of Common Stock (or other securities or property) subject to the annual per-individual limitation under Section 1.4(a) of the Plan, (iv) the Option Price of each outstanding Incentive Award, and (v) the number of or Option Price of Shares of Common Stock then subject to outstanding SARs previously granted and unexercised under the Plan to the end that the same proportion of the Company's issued and outstanding shares of Common Stock in each instance shall remain subject to exercise at the same aggregate Option Price; *provided however*, that the number of Shares of Common Stock (or other securities or property) subject to any Incentive Award shall always be a whole number. In lieu of the foregoing, if deemed appropriate, the Committee may make provision for a cash payment to the holder of an outstanding Incentive Award. Notwithstanding the foregoing, no such adjustment or cash payment shall be made or authorized to the extent that such adjustment or cash payment would cause the Plan or any Stock Option to violate Section 422 of the Code. Such adjustments shall be made in accordance with the rules of any securities exchange, stock market, or stock quotation system to which the Company is subject.

Upon the occurrence of any such adjustment or cash payment, the Company shall provide notice to each affected Grantee of its computation of such adjustment or cash payment, which shall be conclusive and shall be binding upon each such Grantee.

(d) Issue of Common Stock by the Company. Except as herein above expressly provided in this Section 7.5 and subject to Section 7.7 in the event of a Change in Control, the issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, for cash or property, or for labor or services, either upon direct sale or upon the exercise of rights or warrants to subscribe therefor, or upon any conversion of shares or obligations of the Company convertible into such shares or other securities, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number of, or Fair Market Value of, any Incentive Awards then outstanding under previously granted Incentive Awards.

(e) Assumption of Incentive Awards by a Successor. Unless otherwise determined by the Committee in its discretion pursuant to the next paragraph, but subject to the accelerated vesting and other provisions of Section 7.7 that apply in the event of a Change in Control, in the event of a Corporate Event (defined below), each Grantee shall be entitled to receive, in lieu of the number of Shares subject to Incentive Awards, such shares of capital stock (or other securities or property) as may be issuable or payable with respect to or in exchange for the number of Shares which Grantee would have received had he exercised the Incentive Award immediately prior to such Corporate Event, together with any adjustments (including, without limitation, adjustments to the Option Price and the number of Shares issuable on exercise of outstanding Stock Options). A "Corporate Event" means any of the following: (i) a dissolution or liquidation of the Company, (ii) a sale of all or substantially all of the Company's assets, or (iii) a merger, consolidation or combination involving the Company (other than a merger, consolidation or combination (A) in which the Company is the continuing or surviving corporation and (B) which does not result in the outstanding Shares being converted into or exchanged for different securities, cash or other property, or any combination thereof). The Committee shall take whatever other action it deems appropriate to preserve the rights of Grantees holding outstanding Incentive Awards.

Subject to the accelerated vesting and other provisions of Section 7.7 that apply in the event of a Change in Control, in the event of a Corporate Event, the Committee in its discretion shall have the right and power to:

(i) cancel, effective immediately prior to the occurrence of the Corporate Event, each outstanding Incentive Award (whether or not then exercisable) and, in full consideration of such cancellation, pay to the Grantee an amount in cash equal to the excess of (A) the value, as determined by the Committee, of the property (including cash) received by the holders of Common Stock as a result of such Corporate Event over (B) the exercise price of such Incentive Award, if any; or

(ii) provide for the exchange or substitution of each Incentive Award outstanding immediately prior to such Corporate Event (whether or not then exercisable) for another award with respect to the Common Stock or other property for which such Incentive Award is exchangeable and, incident thereto, make an equitable adjustment as determined by the Committee, in its discretion, in the exercise price of the Incentive Award, if any, or in the number of Shares or amount of property (including cash) subject to the Incentive Award; or

(iii) provide for the assumption of the Plan and such outstanding Incentive Awards by the surviving entity or its parent.

The Committee, in its discretion, shall have the authority to take whatever action it deems to be necessary or appropriate to effectuate the provisions of this Subsection (e).

(f) intentionally deleted.

7.6 Termination of Employment, Death, Disability and Retirement

(a) Termination of Relationship. Unless otherwise expressly provided in the Grantee's Incentive Agreement, if the Grantee's Employment or services as a Director or Consultant is terminated for any reason other than due to his death, Disability, Retirement, or for Cause, any non-vested portion of any Stock Option or other applicable Incentive Award at the time of such termination shall automatically expire and terminate and no further vesting shall occur after the termination date. In such event, except as otherwise expressly provided in his Incentive Agreement, the Grantee shall be entitled to exercise his rights only with respect to the portion of the Incentive Award that was vested as of his termination of Employment or service date. In such event, except as otherwise expressly provided in his Incentive Agreement, the Grantee shall be entitled to exercise his vested Stock Options for a period that shall end on the earlier of (i) the expiration date set forth in the Incentive Agreement or (ii) one hundred eighty (180) days after the date of his termination, except with respect to Incentive Stock Options, in which case such period shall be three (3) months.

(b) Termination for Cause. Unless otherwise expressly provided in the Grantee's Incentive Agreement, in the event of the termination of a Grantee's Employment, or service as a Consultant or Director, for Cause, all vested and non-vested Stock Options and other Incentive Awards (other than vested Restricted Stock or vested Restricted Stock Units) granted to such Grantee shall immediately expire, and shall not be exercisable to any extent, as of 12:01 a.m., Houston, Texas time, on the date of such termination of Employment or service for cause.

(c) Retirement. Unless otherwise expressly provided in the Grantee's Incentive Agreement, upon the termination of Employment due to the Retirement of any Employee who is a Grantee:

(i) all of his Stock Options and Stock Appreciation Rights then outstanding shall become 100% vested and immediately and fully exercisable until the earlier of (A) the expiration date set forth in the Incentive Agreement for such Incentive Award; or (B) the expiration of (1) twelve months after the date of his termination of Employment due to his Retirement in the case of any Incentive Award other than an Incentive Stock Option or (2) three months after his termination date in the case of an Incentive Stock Option;

(ii) any Period of Restriction with respect to any of his Restricted Stock or Restricted Stock Units shall be deemed to have expired and all restrictions imposed on Restricted Stock or Restricted Stock

Units shall lapse, and each such Incentive Award shall thereupon become free of all restrictions and fully vested; and

(iii) all of the restrictions and conditions of any of his Other Stock-Based Awards then outstanding shall be deemed satisfied, and the Period of Restriction with respect thereto shall be deemed to have expired, and each such Incentive Award shall thereupon become free of all restrictions and fully vested.

(d) *Disability or Death.* Unless otherwise expressly provided in the Grantee's Incentive Agreement, upon the termination of Employment or service as a Director due to the Disability or death of any Employee or Non-Employee Director who is a Grantee:

(i) all of his Stock Options and Stock Appreciation Rights then outstanding shall become 100% vested and immediately and fully exercisable until the earlier of (A) the expiration date set forth in the Incentive Agreement for such Incentive Award; or (B) the expiration of (1) twelve months after the date of his termination of Employment due to his Disability or death in the case of any Incentive Award other than an Incentive Stock Option or (2) three months after his termination date in the case of an Incentive Stock Option;

(ii) any Period of Restriction with respect to any of his Restricted Stock or Restricted Stock Unit shall be deemed to have expired and all restrictions imposed on Restricted Stock or Restricted Stock Units shall lapse, and each such Incentive Award shall thereupon become free of all restrictions and fully vested; and

(iii) all of the restrictions and conditions of any of his Other Stock-Based Awards then outstanding shall be deemed satisfied, and the Period of Restriction with respect thereto shall be deemed to have expired, and each such Incentive Award shall thereupon become free of all restrictions and fully vested.

In the case of any vested Incentive Stock Option held by an Employee following termination of Employment, notwithstanding the definition of 'Disability' in Section 1.2, whether the Employee has incurred a 'Disability' for purposes of determining the length of the Option exercise period following termination of Employment under this Subsection (d) shall be determined by reference to Section 22(e)(3) of the Code to the extent required by Section 422(c)(6) of the Code. The Committee shall determine whether a Disability for purposes of this Subsection (d) has occurred.

(e) *Continuation.* Subject to the conditions and limitations of the Plan and applicable law and regulation in the event that a Grantee ceases to be an Employee or Consultant, as applicable, for whatever reason, the Committee and Grantee may mutually agree with respect to any outstanding Option or other Incentive Award then held by the Grantee (i) for an acceleration or other adjustment in any vesting schedule applicable to the Incentive Award, (ii) for a continuation of the exercise period following termination for a longer period than is otherwise provided under such Incentive Award, or (iii) to any other change in the terms and conditions of the Incentive Award. In the event of any such change to an outstanding Incentive Award, a written amendment to the Grantee's Incentive Agreement shall be required.

7.7 Change in Control

In the event of a Change in Control (as defined below), the following actions shall automatically occur as of the day immediately preceding the Change in Control date unless expressly provided otherwise in the Grantee's Incentive Agreement:

(a) all of the Stock Options and Stock Appreciation Rights then outstanding shall become 100% vested and immediately and fully exercisable;

(b) any Period of Restriction with respect to any Restricted Stock or Restricted Stock Unit shall be deemed to have expired and all restrictions imposed on Restricted Stock or Restricted Stock Units shall lapse, and thus each such Incentive Award shall become free of all restrictions and fully vested;

(c) all of the restrictions and conditions of any Other Stock-Based Awards then outstanding shall be deemed satisfied, and the Period of Restriction with respect thereto shall be deemed to have expired, and thus each such Incentive Award shall become free of all restrictions and fully vested; and

(d) all of the Performance Shares, Restricted Stock, Restricted Stock Units and any Other Stock-Based Awards shall become fully vested, deemed earned in full, and promptly paid within thirty (30) days to the affected Grantees without regard to payment schedules and notwithstanding that the applicable performance cycle, retention cycle or other restrictions and conditions have not been completed or satisfied.

Notwithstanding any other provision of this Plan, unless otherwise expressly provided in the Grantee's Incentive Agreement, the provisions of this Section 7.7 may not be terminated, amended, or modified to adversely affect any Incentive Award theretofore granted under the Plan without the prior written consent of the Grantee with respect to his outstanding Incentive Awards, subject, however, to the last paragraph of this Section 7.7.

For all purposes of this Plan, a "Change in Control" of the Company means the occurrence of any one or more of the following events:

(a) The acquisition by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act (a "Person")) of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of forty percent (40%) or more of either (i) the then outstanding shares of common stock of the Company (the "Outstanding Company Stock") or (ii) the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); *provided, however*, that the following acquisitions shall not constitute a Change in Control: (i) any acquisition directly from the Company or any Subsidiary, (ii) any acquisition by the Company or any Subsidiary or by any employee benefit plan (or related trust) sponsored or maintained by the Company or any Subsidiary, or (iii) any acquisition by any corporation pursuant to a reorganization, merger, consolidation or similar business combination involving the Company (a "Merger"), if, following such Merger, the conditions described in clauses (i) and (ii) of Section 7.7(c) (below) are satisfied;

(b) Individuals who, as of the Effective Date, constitute the Board of Directors of the Company (the "Incumbent Board") cease for any reason to constitute at least a majority of the Board; *provided, however*, that any individual becoming a director subsequent to the Effective Date whose election, or nomination for election by the Company's shareholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest (a solicitation by any person or group of persons for the purpose of opposing a solicitation of proxies or consents by the Board with respect to the election or removal of Directors at any annual or special meeting of stockholders) or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board;

(c) Approval by the stockholders of the Company of a Merger, unless immediately following such Merger, (i) substantially all of the holders of the Outstanding Company Voting Securities immediately prior to Merger beneficially own, directly or indirectly, more than 50% of the common stock of the corporation resulting from such Merger (or its parent corporation) in substantially the same proportions as their ownership of Outstanding Company Voting Securities immediately prior to such Merger and (ii) at least a majority of the members of the board of directors of the corporation resulting from such Merger (or its parent corporation) were members of the Incumbent Board at the time of the execution of the initial agreement providing for such Merger; or

(d) The sale or other disposition of all or substantially all of the assets of the Company.

7.8 Exchange of Incentive Awards

The Committee may, in its discretion, permit any Grantee to surrender outstanding Incentive Awards in order to exercise or realize his rights under other Incentive Awards or in exchange for the grant of new Incentive Awards, or require holders of Incentive Awards to surrender outstanding Incentive Awards (or comparable rights under other plans or arrangements) as a condition precedent to the grant of new Incentive Awards.

SECTION 8

GENERAL

8.1 *Effective Date and Grant Period*

The amendment and restatement of this Plan is adopted by the Board effective as of February 14, 2008. No Incentive Award that is an Incentive Stock Option shall be granted under the Plan after ten (10) years from the Effective Date. Unless sooner terminated by action of the Board, this Plan will terminate at 5:00 p.m. Houston, Texas time, on May 3, 2014. Incentive Awards under this Plan may not be granted after that date, but any Incentive Award duly granted before that date will continue to be effective in accordance with its terms and conditions.

8.2 *Funding and Liability of Company*

No provision of the Plan shall require the Company, for the purpose of satisfying any obligations under the Plan, to purchase assets or place any assets in a trust or other entity to which contributions are made, or otherwise to segregate any assets. In addition, the Company shall not be required to maintain separate bank accounts, books, records or other evidence of the existence of a segregated or separately maintained or administered fund for purposes of the Plan. Although bookkeeping accounts may be established with respect to Grantees who are entitled to cash, Common Stock or rights thereto under the Plan, any such accounts shall be used merely as a bookkeeping convenience. The Company shall not be required to segregate any assets that may at any time be represented by cash, Common Stock or rights thereto. The Plan shall not be construed as providing for such segregation, nor shall the Company, the Board or the Committee be deemed to be a trustee of any cash, Common Stock or rights thereto. Any liability or obligation of the Company to any Grantee with respect to an Incentive Award shall be based solely upon any contractual obligations that may be created by this Plan and any Incentive Agreement, and no such liability or obligation of the Company shall be deemed to be secured by any pledge or other encumbrance on any property of the Company. Neither the Company, the Board nor the Committee shall be required to give any security or bond for the performance of any obligation that may be created by the Plan.

8.3 *Withholding Taxes*

(a) *Tax Withholding.* The Company shall have the power and the right to deduct or withhold, or require a Grantee to remit to the Company, an amount sufficient to satisfy federal, state, and local taxes, domestic or foreign, required by law or regulation to be withheld with respect to any taxable event arising as a result of the Plan or an Incentive Award hereunder.

(b) *Share Withholding.* With respect to tax withholding required upon the exercise of Stock Options or SARs, or upon any other taxable event arising as a result of any Incentive Awards, Grantees may elect, subject to the approval of the Committee in its discretion, to satisfy the withholding requirement, in whole or in part, by having the Company withhold Shares having a Fair Market Value on the date the tax is to be determined equal to the minimum withholding tax which could be imposed on the transaction. All such elections shall be made in writing, signed by the Grantee, and shall be subject to any restrictions or limitations that the Committee, in its discretion, deems appropriate.

8.4 *No Guarantee of Tax Consequences*

Neither the Company nor the Committee makes any commitment or guarantee that any federal, state or local tax treatment will apply or be available to any person participating or eligible to participate hereunder.

8.5 *Designation of Beneficiary by Grantee*

Each Grantee may, from time to time, name any beneficiary or beneficiaries (who may be named contingently or successively) to whom any benefit under the Plan is to be paid in case of his death before he receives any or all of such benefit. Each such designation shall revoke all prior designations by the same Grantee, shall be in a form prescribed by the Committee, and will be effective only when filed by the Grantee in writing with the Committee during the Grantee's lifetime. In the absence of any such designation, benefits remaining unpaid at the Grantee's death shall be paid to the Grantee's estate.

8.6 *Amendment and Termination*

The Board shall have the power and authority to terminate or amend the Plan at any time. No termination, amendment, or modification of the Plan shall adversely affect in any material way any outstanding Incentive Award previously granted to a Grantee under the Plan, without the written consent of such Grantee or other designated holder of such Incentive Award.

In addition, to the extent that the Committee determines that (a) the listing or qualification requirements of any national securities exchange or quotation system on which the Company's Common Stock is then listed or quoted, if applicable, or (b) the Code (or regulations promulgated thereunder), require stockholder approval in order to maintain compliance with such listing or quotation system requirements or to maintain any favorable tax advantages or qualifications, then the Plan shall not be amended in such respect without approval of the Company's stockholders.

8.7 *Governmental Entities and Securities Exchanges*

The granting of Incentive Awards and the issuance of Shares under the Plan shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required. Certificates evidencing shares of Common Stock delivered under this Plan (to the extent that such shares are so evidenced) may be subject to such stop transfer orders and other restrictions as the Committee may deem advisable under the rules and regulations of the Securities and Exchange Commission, any securities exchange or transaction reporting system upon which the Common Stock is then listed or to which it is admitted for quotation, and any applicable federal or state securities law, if applicable. The Committee may cause a legend or legends to be placed upon such certificates (if any) to make appropriate reference to such restrictions.

8.8 *Successors to Company*

All obligations of the Company under the Plan with respect to Incentive Awards granted hereunder shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

8.9 *Miscellaneous Provisions*

(a) No Employee or Consultant, or other person shall have any claim or right to be granted an Incentive Award under the Plan. Neither the Plan, nor any action taken hereunder, shall be construed as giving any Employee, Director or Consultant, any right to be retained in the Employment or other service of the Company or any Parent or Subsidiary.

(b) By accepting any Incentive Award, each Grantee and each person claiming by or through him shall be deemed to have indicated his acceptance of the Plan.

8.10 *Severability*

In the event that any provision of this Plan shall be held illegal, invalid or unenforceable for any reason, such provision shall be fully severable, but shall not affect the remaining provisions of the Plan, and the Plan shall be construed and enforced as if the illegal, invalid, or unenforceable provision was not included herein.

8.11 *Gender, Tense and Headings*

Whenever the context so requires, words of the masculine gender used herein shall include the feminine and neuter, and words used in the singular shall include the plural. Section headings as used herein are inserted solely for convenience and reference and constitute no part of the interpretation or construction of the Plan.

8.12 *Governing Law*

The Plan shall be interpreted, construed and constructed in accordance with the laws of the State of Texas without regard to its conflicts of law provisions, except as may be superseded by applicable laws of the United States or applicable provisions of the Delaware General Corporation Law.

8.13 *Successor to Director Plan*

This Plan shall serve as the successor to the Director Plan. All outstanding Awards under the Director Plan shall continue to be governed solely by the terms and conditions of the instrument evidencing such grant or issuance. Notwithstanding any provision in this Plan to the contrary, no provision of this Plan is intended to modify, extend or renew any option granted under the Director Plan. Any provision in this Plan that is contrary to a provision in the Director Plan that would create a modification, extension or renewal of such option is hereby incorporated into this Plan. All terms, conditions and limitations, if any, that are set forth in any previously granted option agreement shall remain in full force and effect under the terms of the Plan pursuant to which it was issued.

8.14 *Deferred Compensation*

This Plan and any Incentive Agreement issued under the Plan is intended to meet the requirements of Section 409A of the Code and shall be administered in a manner that is intended to meet those requirements and shall be construed and interpreted in accordance with such intent. To the extent that an Incentive Award or payment, or the settlement or deferral thereof, is subject to Section 409A of the Code, except as the Board otherwise determines in writing, the Incentive Award shall be granted, paid, settled or deferred in a manner that will meet the requirements of Section 409A of the Code, including regulations or other guidance issued with respect thereto, such that the grant, payment, settlement or deferral shall not be subject to the excise tax applicable under Section 409A of the Code. Any provision of this Plan or any Incentive Agreement that would cause an Incentive Award or the payment, settlement or deferral thereof to fail to satisfy Section 409A of the Code shall be amended (in a manner that as closely as practicable achieves the original intent of this Plan or the Incentive Agreement, as applicable) to comply with Section 409A of the Code on a timely basis, which may be made on a retroactive basis, in accordance with regulations and other guidance issued under Section 409A of the Code. In the event the Plan allows for a deferral of compensation, the Plan is intended to qualify for certain exemptions under Title I of ERISA provided for plans that are unfunded and maintained primarily for the purpose of providing deferred compensation for a select group of management or highly-compensated employees.

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**ION GEOPHYSICAL CORPORATION
EMPLOYEE STOCK PURCHASE PLAN**

ARTICLE I

PURPOSE

1.01 *Purpose.* The purpose of the ION Geophysical Corporation Employee Stock Purchase Plan (the “Plan”) is to encourage employees of ION Geophysical Corporation (“ION”) to remain in its employ and participate in its growth by providing a method whereby employees of ION and its eligible Subsidiary Corporations (collectively, with ION, the “Company”) will have an opportunity to acquire a proprietary interest in the Company’s long-term performance and success through the purchase of shares of the Common Stock at a price that may be less than the fair market value of the stock on the date of purchase from funds accumulated through payroll deductions. It is the intention of the Company to have the Plan qualify as an “employee stock purchase plan” under section 423 of the Internal Revenue Code of 1986, as amended (the “Code”). The provisions of the Plan shall be construed so as to extend and limit participation in a manner consistent with the requirements of that section of the Code.

ARTICLE II

DEFINITIONS

2.01 “*Board*” means the Board of Directors of ION.

2.02 “*Common Stock*” means the Common Stock, \$0.01 par value, of ION.

2.03 “*Committee*” means the committee appointed by the Board pursuant to Article X to administer the Plan. If the Board does not appoint a Committee, or if a Committee otherwise fails to exist at any time during the term hereof, the Board shall perform the functions of the Committee.

2.04 “*Eligible Pay*” means regular base wages or salary and overtime before deduction for any contributions to any plan maintained by the Company and described in Section 401(k) or Section 125 of the Code, but excluding payments for bonuses, commissions and other incentive and special payments.

2.05 “*Employee*” means any person who is employed, within the meaning of Code section 3401, by the Company. The Committee shall determine when an Employee’s period of employment terminates and when such period of employment is deemed to be continued during an approved leave of absence.

2.06 “*Offering*” means any offering as described in Section 4.02 hereof permitting Participants to purchase Common Stock under the Plan.

2.07 “*Offering Commencement Date*” means the date on which an Offering will commence, as described in Section 4.02.

2.08 “*Offering Period*” means the period between the Offering Commencement Date and the Purchase Date, as described in Section 4.02.

2.09 “*Participant*” means an Employee who elects to purchase Common Stock under the Plan by authorizing payroll deductions under Section 5.02.

2.10 “*Plan*” means the ION Geophysical Corporation Employee Stock Purchase Plan, as set forth herein and as it may be amended from time to time.

2.11 “*Purchase Date*” means for any Offering Period, the last day of such period.

2.12 “*Subsidiary Corporation*” means (i) any “subsidiary corporation” of ION as that term is defined in section 424(f) of the Code, (ii) any other entity that is taxed as a corporation under Code Section 7701(a)(3) and is a member of the “affiliated group” as defined in Code Section 1504(a) of which ION is the common

parent, and (iii) any other entity as may be permitted from time to time by the Code or the Internal Revenue Service to be an employer of employees participating in the Plan; provided, however, that any such Subsidiary Corporation must be designated as a participating employer in the Plan by the Board.

ARTICLE III

ELIGIBILITY AND PARTICIPATION

3.01 *Initial Eligibility.* Except as provided in Section 3.02, any Employee shall be eligible to participate in Offerings under the Plan.

3.02 *Restrictions on Participation.* Notwithstanding any provisions of the Plan to the contrary, no Employee shall be granted an option to purchase Common Stock under the Plan:

(a) if, immediately after the grant, such Employee would own stock, and/or hold outstanding options to purchase stock, possessing 5% or more of the total combined voting power or value of all classes of stock of the Company (for purposes of this subparagraph, the rules of section 424(d) of the Code shall apply in determining stock ownership of any Employee) and any option granted to an Employee which results in his stock ownership (as determined under section 423(b)(3) of the Code) equaling or exceeding such 5% limitation shall be entirely void as if it had never been granted; or

(b) which permits his rights to purchase stock under all employee stock purchase plans of the Company to accrue at a rate which exceeds \$25,000 in fair market value of the stock (determined at the time such option is granted) for each calendar year in which such option is outstanding. For purposes of this subparagraph (b), (i) an option accrues when the option first becomes exercisable during any calendar year; (ii) an option accrues at a rate provided in the applicable Offering, but in no case may such rate for any Employee exceed \$25,000 of the fair market value of stock determined at the time the option is granted for any one calendar year; (iii) an option that has accrued under any one Offering may not be carried over by a Participant to any other Offering; and (iv) only rights to purchase stock that have been granted under an employee stock purchase plan that complies with section 423 of the Code shall be taken into account.

3.03 *Commencement of Participation.* An eligible Employee may become a Participant by completing an authorization for a payroll deduction in accordance with Section 5.02 in the manner provided by the Company and filing it with the Company on or before the date set therefor by the Committee, which date shall be prior to the Offering.

ARTICLE IV

OFFERINGS

4.01 *Shares Offered.* The total number of shares of Common Stock available under the Plan shall be One Million Five Hundred Thousand (1,500,000) shares. If any Offering shall expire without the rights under such Offering having been exercised in full, such unpurchased shares covered thereby shall be added to the shares otherwise available for future Offerings.

4.02 *Offerings.* The Company shall make periodic Offerings to eligible employees to purchase Common Stock under the Plan, the duration of which shall be for a period of six (6) months; provided, however, that the initial Offering Commencement Date may be for a period of less than six (6) months, as determined by the Committee. Offering Periods commencing after the initial Offering Period will commence on February 1 or August 1. With respect to each Offering, the maximum number of shares of Common Stock that may be purchased under the Offering shall be 100,000 shares. The number of shares of Common Stock that may be purchased annually shall be limited to 200,000 shares. Each Participant shall be limited to 500 shares per Offering Period and 1,000 shares annually. In addition to other limitations provided for under this Plan or any Offering, no Participant shall be entitled to purchase an amount of Common Stock in any calendar year that exceeds \$10,000 in fair market value (determined at each Offering Commencement Date) taking into account

all employee stock purchase plans of the Company. For purposes of this \$10,000 limit, Common Stock purchased during any other Offering Period within the same calendar year shall be taken into account

As used in the Plan, "Offering Commencement Date" means the February 1 or August 1, or such other date determined by the Company, as the case may be, on which the particular Offering begins. "Purchase Date" means the January 31 or July 31, as the case may be, on which the particular Offering terminates, and "Offering Period" means the period from the Offering Commencement Date to the Purchase Date.

ARTICLE V

PAYROLL DEDUCTIONS

5.01 Offering Rights. With respect to each Offering, each Employee shall be offered the opportunity to elect to have deducted from each paycheck issued during the Offering Period an amount as determined by the Participant which shall be withheld by the Company for the purchase on behalf of such electing Employee of the number of whole shares of Common Stock that can be purchased with the amount deducted for such purpose, but in no event may the number of whole shares which may be purchased by any Participant exceed the number of whole shares available during the Offering Period for the Offering Period described in Section 6.03 hereof. Fractional shares may not be purchased; any funds that are insufficient to purchase whole shares shall remain in each affected Participant's Plan account until the following Offering Period, at which time such funds shall be (i) combined with the Participant's payroll deduction for the following Offering Period and used to purchase whole shares for each affected Participant who remains eligible to participate in such Offering Period, or (ii) returned to each affected Participant who is not eligible to participate in the following Offering Period.

5.02 Payroll Deductions. Each Employee shall become a Participant pursuant to the terms of an Offering by filing, in the manner specified by the Company, an election to participate in that Offering in the form of a payroll deduction authorization prior to the Offering Commencement Date on the form provided by the Company for that purpose. A Participant may elect to have his authorization continue for future Offerings until revoked or modified in writing. A Participant may elect to have deductions made from his pay in one of two ways. At the time a Participant files his authorization for payroll deduction, he shall elect to have deductions made from his pay on each payday during the time he is a Participant in an Offering at the rate of any specified whole percentage from 1% up to and including 10% of his Eligible Pay in effect at the Offering Commencement Date or the Participant shall elect to have a specific dollar amount deducted from his pay on each payday during the time he is a Participant pursuant to rules that may be proscribed from time to time by the Committee; provided, however, that each payroll deduction shall be in an amount not less than \$20 per payroll period and shall be subject to the restrictions contained in Section 3.02. Payroll deductions shall commence with the first regular payroll period coinciding with or ending on the Offering Commencement Date, or at such other time as may be specified in such Offering and shall end on the earlier of the last regular payroll period coinciding with or ending before the Purchase Date or, if earlier, upon the termination of the Participant's employment with the Company.

5.03 Method of Payment; Participant's Account. The Company will maintain or cause to have maintained a Plan account on its books in the names of each Participant. All payroll deductions made for a Participant shall be credited to his account under the Plan. Purchases of shares of Common Stock by any Participant pursuant to an Offering shall be made with funds accumulated in the Participant's account through payroll deductions from the Participant's Eligible Pay during the Offering Period. A Participant may not make any separate cash payment into such account except when on leave of absence and then only as provided in Section 5.05. The Company shall not credit a Participant's Plan account with interest on any payroll deduction.

5.04 Changes in Payroll Deductions. A Participant may discontinue his participation in the Plan as provided in Article VII, but no other change can be made during an Offering and, specifically, a Participant may not alter the amount of his payroll deductions for that Offering.

5.05 Leave of Absence. If a Participant goes on a leave of absence, such Participant shall have the right to elect (i) to withdraw the balance in his Plan account pursuant to Article VII, (ii) to discontinue contributions to the Plan but remain a Participant in the Plan, or (iii) to remain a Participant in the Plan during such leave of absence, authorizing deductions to be made from payments by the Company to the Participant during such leave of absence and undertaking to make cash payments to the Plan at the end of each payroll period to the extent that amounts payable by the Company to such Participant are insufficient to meet such Participant's authorized Plan deductions.

ARTICLE VI

TERMS AND CONDITIONS OF OFFERINGS AND OPTIONS

6.01 Terms and Conditions. Except as provided in Section 3.02(b), all Participants shall have the same rights and privileges, as specified below in this Article VI.

6.02 Number of Option Shares. On each Offering Commencement Date, a Participant shall be deemed to have been granted an option to purchase shares of Common Stock of the Company equal to the percentage of the Employee's Eligible Pay that he has elected to have withheld through payroll deductions multiplied by the Employee's Eligible Pay during the Offering Period, or the specified portion elected, divided by the purchase price per share determined under Section 6.04, subject to the allotments, if any, for the Offering Period described in Section 6.03.

6.03 Allotment of Shares. If the total number of shares of Common Stock to be purchased by Participants through payroll deduction under any Offering exceeds the shares available for purchase under the Offering, the Committee may make allotments of shares among the Participants on any basis consistent with the terms of the Plan, and Offerings for shares, if any, in excess of the shares so allotted shall be deemed to have lapsed. Any funds remaining in a Participant's account after an Offering as a result of this Section 6.03 shall be carried over into the next Offering, or shall be returned to the Participant as soon as practicable if another Offering will not occur or if the Employee does not elect to participate in the next Offering.

6.04 Purchase Price. Unless otherwise established by the Committee, the purchase price per share at which Common Stock may be purchased under each Offering shall be 85% of the lesser of the fair market value of a share of Common Stock as determined as of (i) the Offering Commencement Date or (ii) the Purchase Date. In determining the purchase price, the fair market value per share of Common Stock shall be the closing price reported, if any, on the New York Stock Exchange or successor exchange or market system for the date on which such value is being determined; provided, however, that if the closing sales price is not reported on such date, then the closing price on the most recently preceding date on which such price was reported shall be used. If no trading market on the New York Stock Exchange exists, the Board of Directors or the Committee shall determine the fair market value for this purpose.

6.05 Nontransferability of Options. An option shall not be transferable by the Employee or Participant to whom it has been granted otherwise than by will or the laws of descent and distribution and shall be exercisable, during the Participant's lifetime, only by the Participant. Further, in the discretion of the Board, the terms of any Offering may prohibit transfer under any circumstances and provide for cancellation of the unexercised portion of any option upon the death of a Participant.

6.06 Purchases. As of the Purchase Date, or such other date as required by administrative operational requirements, purchases of shares of Common Stock by any Participant pursuant to an Offering shall be made with funds accumulated in the Participant's account through payroll deductions from the Participant's pay or as otherwise permitted by the Board, under rules of uniform application over the time period specified in such Offering.

6.07 Other Provisions. Each Offering shall contain such other provisions as the Committee shall deem advisable, including restrictions on resale of Common Stock purchased through an Offering, provided that no such provisions may in any way conflict, or be inconsistent with the terms of the Plan as amended from time to time.

6.08 Requirements of Law. The issuance of any Common Stock hereunder is conditioned upon registration or exemption of the Common Stock to be issued under applicable federal and state securities laws and its listing on any applicable stock exchange. In no event shall any Common Stock be issued hereunder prior to the effective date of any such registration, exemption or listing application. In addition, unless and until the Plan is approved by a proper vote of the stockholders of ION, the purchase price per share under Section 6.04 shall be at least 100% of the fair market value determined thereunder.

6.09 Issuance of Common Stock. The shares of Common Stock purchased by each Participant with respect to each Offering shall be considered to be issued and outstanding to his credit as of the close of business on the Purchase Date or other purchase date for the Offering as described in Section 6.06. The Committee shall have the power to establish a brokerage account under the Plan for each Participant, to which the shares of Common Stock purchased by the Participant shall be credited. Alternatively, the Company shall have the power to appoint and remove an independent third party (which may, but need not be, be a bank or trust company) to act as nominee of the Company under the Plan to hold shares of Common Stock purchased by a Participant, in which case the issuance of the shares shall be evidenced by as many or as few certificates as the Committee may determine, and the shares shall be credited to the account of the Participant under the Plan. No certificate representing shares of Common Stock credited to a Participant's account shall be issued to the Participant unless the Participant, or in the event of death, the Participant's designee, makes a written request to the Company for a certificate to be issued at the Participant's or designee's expense.

6.10 Account Balances. No interest shall accrue at any time for any amount credited to the account of a Participant. After the close of each Offering, a report shall be sent to each Participant stating the entries made to his account, the number of shares of Common Stock purchased, and the applicable purchase price of such shares.

ARTICLE VII

WITHDRAWALS FROM PARTICIPANT ACCOUNTS

7.01 Withdrawal From Offering. Except for any officer of the Company who is subject to the reporting requirements of Section 16(a) of the Securities Exchange Act of 1934, as amended (an "Insider"), any Participant may cease participation in an Offering prior to the Purchase Date and withdraw all cash amounts in his account by providing at least fifteen (15) days' prior written notice to the Company's human resource department revoking his payroll deduction authorization. Such withdrawals shall serve to cancel the Participant's option, and the Participant shall thereupon cease his participation in such Offering. Partial cash withdrawals shall not be permitted. Any cash withdrawal request shall be made in such form and under such conditions as may be specified from time to time by the Committee. Insiders may not make cash withdrawals for so long as they remain Insiders.

7.02 Issuance of Stock. As soon as practicable after each Offering Period, each Participant may receive a certificate representing all of the shares of Common Stock (in a whole number of shares) held in his account. Subject to Section 6.07, a Participant shall not be permitted to pledge, transfer, or sell shares of Common Stock credited to his account except (i) if brokerage accounts are established, there are no restrictions under the Plan, or (ii), if brokerage accounts are not established, a certificate is issued to the Participant with respect to the shares pursuant to Section 6.09.

7.03 Termination of Employment. Upon termination of a Participant's employment with the Company for any reason, whether voluntary or involuntary, his participation in the Plan shall immediately terminate. As soon thereafter as is practicable, the Participant, or the Participant's beneficiary in the event of the Participant's death, shall receive (i) cash in an amount equal to the balance in his account as of the date of his termination of employment, without interest, or (ii) (A) if brokerage accounts are established, the release of any remaining restrictions under the Plan with respect to shares of Common Stock credited to the brokerage account and not previously transferred out of the account, or (B) if brokerage accounts are not established, a certificate evidencing the shares of Common Stock not previously delivered out of the account.

ARTICLE VIII

RECAPITALIZATION OR REORGANIZATION AND COMMON STOCK DIVIDENDS

8.01 *Merger, Consolidation, or Reorganization.* In the event of a dissolution or liquidation of the Company, or any merger, consolidation, or share exchange pursuant to which the holders of Common Stock would receive cash, securities or property from another person or entity, the Board, at its election, may cause each outstanding option to terminate; provided, however, that each Participant shall in such event, subject to such rules and limitations of uniform application as the Board may prescribe, be entitled to the rights of terminating Participants provided in Article VII.

8.02 *Capital Adjustments.* The aggregate number of shares of Common Stock that may be purchased by the exercise of outstanding options and the purchase price per share covered by each such outstanding option and the number of shares of Common Stock held in a Participant's account shall be proportionately adjusted for any increase or decrease in the number of issued shares resulting from a subdivision or consolidation of Common Stock or other capital adjustment or the payment of a Common Stock dividend or other increase or decrease in such shares of Common Stock effected without the receipt of consideration by the Company.

8.03 *Company's Discretion.* The grant of an option under the Plan shall not affect in any way the Company's right or power to make adjustments, reclassifications, reorganizations, or changes of its capital or business or to merge, consolidate, dissolve, liquidate, sell, or transfer all or any part of its business or assets.

ARTICLE IX

AMENDMENT OR TERMINATION OF THE PLAN

9.01 *Amendment or Termination.* The Board in its sole and absolute discretion may suspend or terminate the Plan, reconstitute the Plan in whole or in part, or amend or revise the Plan in any respect whatsoever except that (i) no amendment shall cause any option to fail to qualify as an option under section 423 of the Code; (ii) without approval of the stockholders, no amendment shall increase the number shares of Common Stock that may be sold under the Plan or make any change in the Employees or class of Employees eligible to participate in the Plan; and (iii) without the approval of a Participant, no change shall be made in the terms of any outstanding option adverse to the interest of the Participant. The Plan shall terminate on the ten-year anniversary of its adoption by the Board or, if earlier, shall be only suspended (and not terminated) on the date that all shares of Common Stock authorized for sale under the Plan have been purchased, except as otherwise extended by authorizing additional shares under the Plan.

ARTICLE X

ADMINISTRATION

10.01 *Appointment of Committee.* If the Board appoints a Committee to administer the Plan, the Committee shall be the same as the Compensation Committee of the Board. The Board may from time to time appoint members of the Committee in substitution for or in addition to members previously appointed and may fill vacancies, however caused, in the Committee.

10.02 *Authority of Committee.* Subject to the express provisions of the Plan, the Committee shall have full power and authority in its discretion to interpret and construe any and all provisions of the Plan, to adopt rules and regulations for administering the Plan, and to make all other determinations deemed necessary or advisable for administering the Plan. The Committee's determination on the foregoing matters shall be final, conclusive and binding on all persons. The Committee may delegate some or all of its administrative powers and responsibilities to such other persons from time to time as it deems appropriate.

ARTICLE XI

MISCELLANEOUS

11.01 Nontransferability. Except by the laws of descent and distribution, no benefit provided hereunder shall be subject to alienation, assignment, or transfer by a Participant (or by any person entitled to such benefit pursuant to the terms of this Plan), nor shall it be subject to attachment or other legal process of whatever nature, and any attempted alienation, assignment, attachment, or transfer shall be void and of no effect whatsoever and, upon any such attempt, the benefit shall terminate and be of no force or effect. During a Participant's lifetime, options granted to the Participant shall be exercisable only by the Participant. Shares of Common Stock shall be delivered only to the Participant or death beneficiary entitled to receive the same or to the Participant's authorized legal representative.

11.02 No Employment Right. Neither this Plan nor any action taken hereunder shall be construed as giving any right to any individual to be retained as an officer or Employee of the Company.

11.03 Tax Withholding. The Company shall have the right to deduct from all payments hereunder any federal, state, local, or employment taxes that it deems are required by law to be withheld with respect to such payments.

11.04 Government and Other Regulations. The obligation of the Company to deliver shares of Common Stock or make cash payments hereunder shall be subject to all applicable laws, rules, and regulations and to such approvals by any government agencies or regulatory authority as may be deemed necessary or appropriate by the Committee. If shares of Common Stock deliverable hereunder may in certain circumstances be exempt from registration under the Securities Act of 1933, as amended, the Company may restrict its transfer in such manner as it deems advisable to ensure such exempt status. The Plan is intended to comply with Rule 16b-3 under the Securities Exchange Act of 1934, as amended. Any provision inconsistent with such Rule shall be inoperative and shall not affect the validity of the Plan. The Plan shall be subject to any provision necessary to assure compliance with federal and state securities laws.

11.05 Indemnification. Each person who is or at any time serves as a member of the Board and/or the Committee shall be indemnified and held harmless by ION against and from (i) any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by such person in connection with or resulting from any claim, action, suit, or proceeding to which such person may be a party or in which such person may be involved by reason of any action or failure to act under this Plan; and (ii) any and all amounts paid by such person in satisfaction of judgment in any such action, suit, or proceeding relating to this Plan except to the extent that any such loss, cost, liability or expense arises from the gross negligence or willful misconduct of such person. Each person covered by this indemnification shall give ION an opportunity, at its own expense, to handle and defend the same before such person undertakes to handle and defend the same on such person's own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the charter or bylaws of ION, as a matter of law, or otherwise, or any power that ION may have to indemnify such person or hold such person harmless.

11.06 Reliance on Reports. Each member of the Board and the Committee shall be fully justified in relying or acting in good faith upon any report made by the independent public accountants of the Company and upon any other information furnished in connection with this Plan. In no event shall any person who is or shall have been a member of the Board and/or the Committee be liable for any determination made or other action taken or any omission to act in reliance upon any such report or information, or for any action taken, including the furnishing of information, or failure to act, if in good faith.

11.07 Governing Law. All matters relating to this Plan shall be governed by the laws of the State of Texas, without regard to the principles of conflict of laws thereof, except to the extent preempted by the laws of the United States.

11.08 Relationship to Other Benefits. No payment under this Plan shall be taken into account in determining any benefits under any pension, retirement, profit sharing, or group insurance plan of the Company.

11.09 Expenses. The expenses of implementing and administering this Plan shall be borne by the Company.

11.10 Titles and Headings. The titles and headings of the Articles and Sections in this Plan are for convenience of reference only, and in the event of any conflict, the text of this Plan, rather than such titles or headings, shall control.

11.11 Application of Funds. All funds received by the Company under the Plan shall constitute general funds of the Company.

11.12 Nonexclusivity of Plan. Neither the adoption of the Plan by the Board nor the submission of the Plan to the stockholders of ION for approval shall be construed as creating any limitations on the power of the Board to adopt such other incentive arrangements as it may deem desirable, including, without limitation, the granting of stock options otherwise than under the Plan, and such arrangements may be either applicable generally or only in specific cases.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 10-K

(Mark One)

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

For the Fiscal Year Ended December 31, 2009

or

[] 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

(State or Other Jurisdiction of Incorporation or Organization)

22-2286646

(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 [] No [X]

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

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

Indicate by check mark 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 [] No []

* 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. []

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 []

Accelerated filer [X]

Non-accelerated filer []

Smaller reporting company []

(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 [] No [X]

As of June 30, 2009 (the last business day of the registrant's second quarter of fiscal 2009), the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$279.4 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, \$.01 par value, 118,695,952 shares outstanding as of February 22, 2010.

DOCUMENTS INCORPORATED BY REFERENCE

Document

Parts Into Which Incorporated

Portions of the Proxy Statement for the Annual Meeting of Stockholders to be held May 26, 2010

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 Corporation and 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 seismic data acquisition equipment, seismic software, and seismic planning, processing, and interpretation 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 22 cities on five continents. In October 2009, we announced that we had entered into a binding term sheet with BGP Inc., China National Petroleum Corporation (BGP), a wholly-owned oil field service subsidiary of China National Petroleum Corporation (CNPC), to form a land equipment joint venture. 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 and 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 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.

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.

See Item 7. “*Management’s Discussion and Analysis of Financial Condition and Results of Operations — Executive Summary*” for a list of certain developments in our business in 2009 and early 2010.

We operate our company through four business segments. Three of these segments — Land Imaging Systems, Marine Imaging Systems and Data Management Solutions — make up our ION Systems division. The fourth segment is our ION Solutions division.

- *Land Imaging Systems* — cable-based, cableless and radio-controlled seismic data acquisition systems, digital and analog geophone sensors, vibroseis vehicles (i.e., vibrator trucks) and source controllers for detonator and vibrator energy sources and also consisting of analog geophone sensors. After we complete our land equipment joint venture with BGP, all of these business lines, with the exception of analog geophone sensors, will become part of the joint venture. See “— *Proposed Land Equipment Joint Venture with BGP.*”
- *Marine Imaging 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).
- *Data Management Solutions* — software systems and related services for navigation and data management involving towed marine streamer and seabed operations.
- *ION Solutions* — advanced seismic data processing services for marine and land environments, seismic data libraries, and Integrated Seismic Solutions (“ISS”) services.

Our results of operations and financial condition in 2009 were adversely effected by the global economic downturn, which reduced industry demand for our products and services. See Item 1A. “*Risk Factors*” and Item 7. “*Management’s Discussion and Analysis of Financial Condition and Results of Operations.*”

Our executive headquarters are located at 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839. 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, 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 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 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 and the pace of innovation in 3-D seismic imaging technology slowed in the late 1990s, E&P companies slowed the commissioning of new seismic surveys. Also, business practices employed by geophysical contractors in the 1990s 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 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.

As commodity prices increased (beginning in 2004), E&P companies increased their capital investment programs, which drove higher demand for our products and services. Crude oil prices increased to record levels of \$147 per barrel in July 2008, but, in conjunction with the global recession sharply declined after that, fell to approximately \$35 per barrel during the first quarter of 2009. By the end of 2009, oil prices had recovered to approximately \$83 per barrel. Natural gas prices followed a similar, recession-induced downturn. After peaking at \$13.31 per mmBtu in July 2008, Henry Hub natural gas prices fell approximately 50%. Unlike the recent recovery of oil prices, natural gas prices have remained depressed due in part to the excess supply of natural gas in the market. These conditions sharply curtailed demand for exploration activities in North America and in other regions. See Item 7. “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” for further information.

ION Geophysical’s Business Strategy

Factors Affecting Long-Term Demand. Beginning in 2004 and continuing until 2008, we observed increased spending for seismic services and equipment by E&P companies and seismic contractors, driven in part by an increase in commodity prices. A decline in the number and size of new discoveries, production declines in known reservoirs, and expanded demand for hydrocarbons had increased the pressure on E&P companies to discover additional fields and optimize the recovery of those already on production. Until the fourth quarter of 2008, this increasing exploration activity combined with higher commodity price levels increased the demand for seismic technology and services.

The recent global recession that began in 2008 reduced the demand for (and associated prices of) hydrocarbons, which has adversely affected our business and results of operations. However, we believe that several factors are in place that will reverse the downturn in seismic spending for the years ahead. These factors include the following:

- Demand for both crude oil and natural gas should continue to increase as the financial health of developed country economies gradually improves, and as demand in high-growth emerging markets, like China and India, returns to or exceeds previous levels;
- E&P companies are focusing more on hydrocarbon reservoirs that are located in deeper waters or deeper in the geologic column. These reservoirs are generally more complex or subtle than the reservoirs that were discovered in prior decades and are located in unconventional reservoir types, such as tar sand deposits or “tight gas” locked within hard rock or low permeability shales. 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; and
- E&P companies are increasingly using seismic data to enhance production from known fields by repeating time-lapse seismic surveys over a defined area. This trend should benefit seismic companies such as ION by extending the utility of subsurface imaging beyond exploration and into production monitoring, which can last for decades.

We believe that E&P companies will, in the future, increasingly use seismic technology providers who will collaborate with them to tailor surveys that address specific geophysical problems and to apply advanced digital sensor and imaging technologies to take into account the geologic peculiarities of a specific area. In the future, we expect that these 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 from being primarily a seismic equipment provider 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.

Additionally, in September 2008, we further expanded our land system offerings through the acquisition of ARAM Systems Ltd. and Canadian Seismic Rentals Inc. (sometimes collectively referred to herein as “ARAM”). We acquired ARAM for the purpose of advancing our strategy and market penetration in the land seismic recording system business.

Through these and other acquisitions, along with our research and development efforts, our technologies and services now 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.

Responses to the Global Downturn. The dramatic economic changes that occurred in the fourth quarter of 2008 and continued through 2009 caused us to re-evaluate and refine our business strategy. The disruption in the U.S. financial markets prompted a global economic crisis that adversely affected economic activity in most regions of the world and led to a tightening of the availability of commercial credit. Many economists are now predicting a gradual recovery from the prolonged worldwide economic recession and a slow recovery in the credit markets.

Crude oil prices rapidly declined from a peak oil price of \$147 per barrel in July 2008 to approximately \$35 per barrel in the first quarter of 2009. Hydrocarbon price erosion caused E&P companies to decrease their capital expenditure plans for exploration and production activities, which, in turn, adversely impacted the demand for many of our products and services. Natural gas prices followed a similar, recession-induced downturn. After peaking at \$13.31 per mmBtu in July 2008, Henry Hub natural gas prices fell approximately 50%. Unlike the recent recovery of oil prices, natural gas prices have remained depressed due in part to the excess supply of natural gas in the market. These conditions sharply curtailed demand for exploration activities in North America and in other regions.

Unlike many other seismic companies, we participate in the technology side of the business and are mainly involved in the planning, processing and interpretation of data services. We are not in the field crew business, and therefore do not have large amounts of capital and other resources invested in vessels or other assets necessary to support contracted seismic data acquisition services, nor do we have large manufacturing facilities. Our costs are therefore much more variable than most other seismic companies, which provides greater flexibility in difficult economic times. Nonetheless, the global economic crisis, combined with the decline in crude oil and natural gas prices, adversely affected us in 2009.

- All of our business segments saw decreases in revenues, with some segments experiencing significant decreases. Our 2009 total net revenues declined 38% from our 2008 total net revenues.
- Our acquisition of ARAM in 2008 and the \$282 million of debt financing that we incurred to finance the acquisition over-leveraged our company.
- As a result, we reacted by implementing numerous cost-savings programs, including reducing our company-wide employee headcount by approximately 26%.
- We also began considering strategic alternatives.

In the summer of 2009, we commenced negotiations with BGP for a joint venture for our land equipment business, and announced the signing of a binding term sheet for such a joint venture on October 23, 2009. See “ — Products and Services — ION Systems Division — Proposed Land Equipment Joint Venture with BGP.”

Our cost reduction initiatives were necessary in order to adjust to the reduced levels in demand and to align with changes in our overall strategy. For example, the severe slowdown in sales activity for our land acquisition systems in North America and Russia, caused our largest headcount reductions to be concentrated within our Land Imaging Systems segment. We believe that our current headcount is sufficient to manage our business and serve our customers' needs during 2010, but we may make further adjustments as market conditions and our strategy dictate. Our employee headcount will be further reduced once we close the BGP joint venture transactions; employees previously dedicated to the joint venture businesses are expected to become employees within the joint venture.

In addition to analyzing our employee resources, we have evaluated current and planned internal and external programs, including research and development, to ensure that each program is serving a worthwhile goal in the most efficient manner. We are a technology solutions company and we rely upon our research and development programs to ensure that we offer products capable of solving seismic imaging problems around the world efficiently. The recent declines in oil and natural gas prices do not change the data indicating that the oil and gas industry still suffers from declines in the number and size of new discoveries and production declines in known reservoirs. These facts, combined with growing global demographics, support a conclusion of continuing long-term demand for hydrocarbons. In the current difficult economic environment, we believe that our technologies and services are ideal tools for E&P companies seeking ways to be more productive in a lower price environment. As a result, we have focused much of our research and development efforts on strategic programs that are seeking efficient and cost-effective solutions for the challenges in the current market and also in a recovered economy.

A key element of our business strategy, which began with our acquisition of GXT in 2004, 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 oil and natural gas prices in late 2008 and continuing through 2009 has made it even more important for the E&P industry to reduce the number of dry holes and to optimize the wells that are successful. 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 FireFly®, DigiFIN™ and Orca®, 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:

- Increasing our market share and profitability in land acquisition systems and furthering the commercialization of FireFly, our cableless full-wave land data acquisition system, and our other land equipment technologies through our participation in the proposed land equipment joint venture with BGP;
- 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;
- Expanding our ION Solutions business in new regions with new customers and new land and marine service offerings, including proprietary services for owners and operators of oil and gas properties;
- Globalizing our ION 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
- Leveraging our proposed land equipment joint venture with BGP 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 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 GXT Imaging Solutions group, 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:

- Scorpion® — our cable-based land acquisition system;
- VectorSeis Ocean (VSO) — our redeployable ocean bottom cable system for the seabed; and
- FireFly — our cableless full-wave land acquisition system.

Segment Information

We operate our company through four business segments. Three of these segments — Land Imaging Systems, Marine Imaging Systems and Data Management Solutions — make up our ION Systems division. The fourth segment is our ION Solutions division.

- *Land Imaging Systems* — primarily consisting of the businesses to be pursued by the joint venture with BGP, consisting of cable-based, cableless and radio-controlled seismic data acquisition systems, digital

geophone sensors, vibroseis vehicles (i.e., vibrator trucks) and source controllers for detonator and vibrator energy sources and also consisting of analog geophone sensors.

- *Marine Imaging 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).
- *Data Management Solutions* — software systems and related services for navigation and data management involving towed marine streamer and seabed operations.
- *ION Solutions* — advanced seismic data processing services for marine and land environments, seismic data libraries, and Integrated Seismic Solutions (“ISS”) services.

We measure segment operating results based on income from operations. See further discussion of our segment operating results at Note 15 of *Notes to Consolidated Financial Statements*.

Products and Services

See Item 7. “*Management’s Discussion and Analysis of Financial Condition and Results of Operations — Executive Summary*” for a list of certain developments in our business in 2009 and early 2010.

ION Systems Division

Land Imaging Systems Products

Products for our Land Imaging Systems business segment include the following:

Land Acquisition Systems. Our 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 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.

Our 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. In November 2008, ION launched its latest version of ARIES. Known as ARIES II®, this updated 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.

We began VectorSeis technology land acquisition field tests in 1999, and since that time VectorSeis 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. In 2002, we introduced our VectorSeis System Four® land acquisition system. In 2004, we announced the introduction of our new

hybrid System Four platform, which gave seismic companies the flexibility to use both traditional analog geophone sensors and digital full-wave VectorSeis sensors on the same survey. VectorSeis is also used as the primary sensor device on our FireFly cableless land acquisition system.

In November 2005, we announced our development of FireFly, a cableless 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 will improve field productivity while reducing concerns for health and safety and environmental liability exposure. 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.

During late 2006 and 2007, we delivered version 1.0 of our FireFly system, which was used by British Petroleum and then Apache Corporation, in field application projects located in Wyoming and northeast Texas, respectively. An advanced version of our FireFly system was successfully deployed in July 2008 on a multi-client survey in northwest Colorado in which Pittsburgh-based E&P operator, East Resources, served as the lead underwriter. This initial deployment of version 2.0 of our FireFly system was called Durham Ranch, after one of the large, privately held ranches in this ecologically sensitive area. In 2009, ION sold a version 2.0 FireFly system, which is being used in a producing hydrocarbon basin containing reservoirs that have been difficult to image with conventional seismic techniques. During 2009, our version 2.0 FireFly system was utilized on nine surveys shot in three continents, including two high channel count, multicomponent (full-wave) seismic acquisition programs in northeast Texas and three projects in Mexico with Compania Mexicana de Exploraciones (Comesa), an oilfield services company majority-owned by PEMEX, the national oil company of Mexico.

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 geophones used in seismic data acquisition. Our analog geophones are used in other industries as 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.

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. We market and sell 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.

Our 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.

Proposed Land Equipment Joint Venture with BGP

Our binding term sheet with BGP contemplates that we will enter into a purchase agreement with BGP to form the joint venture. We expect to form the joint venture entity as a wholly-owned subsidiary of ION Geophysical Corporation and will contribute to the joint venture certain assets and related liabilities that relate to the proposed joint venture business. Then, BGP will acquire a 51% equity interest from us in the joint venture for an aggregate purchase price of \$108.5 million cash, and will contribute to the joint venture certain of its assets and related liabilities that relate to the joint venture's business. The assets of each party to be contributed to the joint venture will include seismic recording systems, inventory, certain intellectual property rights and contract rights, all as may be necessary to or principally used in the conduct or operation of the businesses to be contributed to the joint venture as presently conducted or operated by each party. The

Company expects the value assigned to the joint venture to exceed the Company's current book value of its land equipment businesses.

The scope of the joint venture's business will be 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 will be (x) the analog sensor businesses of our company and BGP and (y) the businesses of certain companies in which BGP or we are currently a minority owner. All of our other businesses — including our Marine Imaging Systems, Data Management Solutions and ION Solutions (which includes GXT's Imaging Solutions, Integrated Seismic Solutions (ISS) and BasinSPAN™ and seismic data libraries) — will remain owned and operated by us and will not comprise a part of the joint venture.

A key part of the strategy behind the joint venture will be to leverage our research and development experience and expertise with the operational experience and expertise of BGP. It is expected that the R&D centers will remain primarily in the U.S. and Canada and much of the land equipment manufacturing operations will move to China in order to reduce costs. In addition, BGP's crews will be able to field test new technology and related equipment for operational feedback and quality improvements. Finally, we expect that BGP will purchase the majority of its land equipment from the joint venture and will purchase ION products and services from our other business segments. Closing and formation of the joint venture is expected to occur in March 2010.

Marine Imaging Systems Products

Products for our Marine Imaging Systems business 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. 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. Through December 31, 2009, RXT has purchased a total of \$39 million of VSO systems and related equipment toward their commitment. The agreement entitles 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, which, in 2009 and 2008, was \$4.0 million and \$2.4 million, respectively. The agreement granted RXT exclusive rights to the VSO product line through 2011. Because they did not purchase the minimum annual quantity of equipment, in February 2010 we notified RXT that they no longer have 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 a total of nine DigiFIN systems in 2008 with an additional 13 systems delivered in 2009. 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 minimize 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.

Data Management Solutions 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 Data Management Solutions business segment include the following:

Marine Imaging. ORCA is our next-generation software product for towed streamer navigation and integrated data management applications. During 2007 and 2008, Orca made significant inroads into the towed streamer market with several major seismic contractors adopting the technology for their new, high-end seismic vessels. Orca includes modules designed to manage acquisition marine 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 be compatible with our DigiFIN product, which enables streamer lateral control, and DigiSTREAMER, our new marine streamer acquisition system. SPECTRA® is Concept Systems' 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 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.

ION Solutions Division Services

Services for our ION Solutions business segment include the following:

Seismic Data Processing Services. The GXT Imaging Solutions group provides a variety of seismic data processing and imaging services to E&P companies for marine, ocean bottom and land environments. Services include survey planning and design, project oversight of data acquisition operations, advanced signal processing, final image rendering, and geophysical and reservoir analysis.

The GXT Imaging Solutions group offers processing and imaging services through which it develops a series of subsurface images by applying its processing technology to data owned or licensed by its

customers. The group also provides support services to its customers, such as data pre-conditioning for imaging and outsourced management of seismic data acquisition and image processing services.

The GXT Imaging Solutions group uses parallel computer clusters to process seismic data by applying advanced proprietary algorithms and workflows that incorporate techniques such as illumination analysis, data conditioning and velocity modeling, and time and depth migration. Pre-stack depth migration involves the application of advanced, computer-intensive processing techniques which convert time-based seismic information to a depth basis. While pre-stack depth migration is not necessary in every imaging situation, it generally provides the most accurate subsurface images in areas of complex geology. It also helps to convert seismic data, which is recorded in the time domain, into a depth domain format that is more readily applied by geologists and reservoir engineers in identifying well locations. 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.

Our AXIS Geophysics group (AXIS), based in Denver, Colorado, focuses on advanced seismic data processing for stratigraphically complex onshore environments. AXIS has developed a proprietary data processing technique called AZIM™ 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, 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 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 and southeast Asia. In 2009, we completed the acquisition of new BasinSPAN surveys offshore Argentina, northeast Greenland and southern Australia. Additionally, in January 2010, we completed the acquisition of an additional 28,000 km of regional seismic data covering Brazil's southern Santos, Pelotas and northeastern Equatorial basins; this brings our total basin-scale seismic library offshore Brazil to more than 42,000 kilometers of data acquired. Non-seismic surveys employing gravity gradiometry and

magnetic technology were also acquired over northern Canada and the Gulf Coast. Additional SPANS and other seismic and non-seismic programs are planned or under development for other regions of the world.

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.

In 2009, we principally focused our research and development efforts on commercialization of our FireFly system and on DigiSTREAMER, our solid streamer cable for marine acquisition.

During 2010, we expect that our product development efforts will continue across selective business lines aimed at the development of strategic key products and technologies. Major research and development programs are expected to continue for FireFly, our “Digi-” line of marine streamer technologies, our cable-based land systems and our land energy source technologies. A key research and development initiative is underway to integrate FireFly with our cable-based land recording systems in order to provide contractors with a hybrid architecture for cabled and cableless recording on the same survey. We also are investing to develop hybrid sensor functionality for both FireFly (designing the current “all-digital” system to be compatible with analog geophones) and our ARIES II land acquisition system (designing its current “all-analog” system to be compatible with VectorSeis). 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 geophones, full-wave sensors based upon micro-electro magnetic systems (MEMS), navigation and data management software, marine positioning and streamer control systems, cableless land acquisition systems and redeployable seabed recording 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 the years ended December 31, 2009, 2008 and 2007, no single customer accounted for 10% or more of our consolidated net revenues.

Hydrocarbon price erosion has caused E&P companies to revisit their capital investment plans, which, in turn, is reverberating back through the supply chain to affect us both directly and indirectly through our seismic acquisition contractor customers.

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 the years ended December 31, 2009, 2008 and 2007, sales to destinations outside of North America accounted for approximately 64%, 60% and 62% 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.

We have consolidated our international sales at our sales facility operating in Dubai. Dubai is geographically better positioned to ensure that we are close to our customers in one of the most active oil and gas centers of the world.

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 15 of *Notes to Consolidated Financial Statements*.

Manufacturing Outsourcing and Suppliers

Since 2003, we have increased the use of contract manufacturers in our Land and Marine Imaging Systems business segments as an alternative to manufacturing our own products. We have outsourced the manufacturing of our vibrator vehicles, our towed marine streamers, our redeployable ocean bottom cables, various components of VectorSeis Ocean and certain electronic and ground components of our land acquisition systems. We may experience supply interruptions, cost escalations, and competitive disadvantages if we do not monitor these relationships properly.

These contract manufacturers purchase a substantial portion of the components used in our systems and products from third-party vendors. Certain items, such as integrated circuits used in our systems, are purchased from sole source vendors. Although we and our contract manufacturers attempt to maintain an adequate inventory of these single source items, the loss of ready access to any of these items could temporarily disrupt our ability to manufacture and sell certain products. Since our components are designed for use with these single source items, replacing the single source items with functional equivalents could require a redesign of our components and costly delays could result.

In 2004, we transferred ownership of our subsidiary, Applied MEMS, Inc., to Colibrys Ltd. (Colibrys), a Swiss MEMS-based technology firm, in exchange for a 10% ownership interest in Colibrys. We concurrently entered into a five-year supply agreement with Colibrys that provided for Colibrys to supply us with products on an exclusive basis in our markets. Colibrys manufactures MEMS products, including accelerometers, for our VectorSeis sensors, and for other applications, including test and measurement, earthquake and structural monitoring, and defense. In December 2009, our five-year supply agreement with Colibrys expired, and we currently have no plans to enter into a new supply agreement with Colibrys for the products that were covered by the agreement. As of December 31, 2009, we estimate we have three to four years supply of sensor inventory.

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 (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 145 by year-end 2011, compared to approximately 118 at December 31, 2009. In addition, there has been an increase in acquisition activity within the sector, with the major vessel operators — Schlumberger, CGGVeritas, and 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 — ION Solutions Division 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 ION 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 recently 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.

In the land systems market, ION is the second largest provider of cable-based land systems worldwide, trailing only Sercel. In the cableless market, several companies have introduced technologies that compete, directly or indirectly, with FireFly, including Sercel, Ascend Geo, OYO Geospace, Fairfield, and Wireless Seismic. Each company is attempting to implement a cableless architecture in a slightly different way, with variations related to how the telemetry (data communications backbone) works, whether the system can use digital, full-wave sensors (or only analog geophones), and the amount of integration between the cableless recording unit and other technologies used for survey design, equipment deployment/retrieval, operational command and control, and data management.

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 patents, 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," "VectorSeis System Four," "System Four," "FireFly," "ARIES," "ARIES II," "DigiSHOT," "XVib," "DigiCOURSE," "GATOR," "SPECTRA," "Orca," "Scorpion," "SPRINT," and "REFLEX" refer to our VECTORSEIS®, VECTORSEIS SYSTEM FOUR®, SYSTEM FOUR®, FIREFLY®, ARIES®, ARIES II®, DIGISHOT®, XVIB®, DIGICOURSE®, GATOR®, SPECTRA®, ORCA®, SCORPION®, SPRINT®, and REFLEX® registered marks, and the terms "AZIM," "ArgentinaSPAN," "ArcticSPAN," "BasinSPAN," "BightSPAN," "BrasilSPAN," "True Digital," "DigiRANGE II," "Digi-STREAMER," "CompassBIRD," "SM-24," "AHV-IV," "Vib Pro," "Shot Pro," "DigiFIN," "Autobahn," and "SWAT" refer to our AZIM™, ArgentinaSPAN™, ArcticSPAN™, BasinSPAN™, BightSPAN™, BrasilSPAN™, True Digital™, DigiRANGE II™, DigiSTREAMER™, CompassBIRD™, SM-24™, AHV-IV™, Vib Pro™, Shot Pro™, DigiFIN™, Autobahn™, and SWAT™ trademarks and service marks.

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

Employees

As of December 31, 2009, we had 1,128 regular, full-time employees, 684 of which 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.

Beginning in the fourth quarter of 2008 and continuing through 2009, we implemented a restructuring program that included reducing our headcount by approximately 26%. During 2010, upon closing our joint venture transaction with BGP, we expect that a significant number of our land equipment systems employees will become employees within the joint venture, thereby further reducing our headcount. We will continue to evaluate our staffing needs during 2010 and will make adjustments as necessary.

Financial Information by Segment and Geographic Area

For a discussion of financial information by business segment and geographic area, see Note 15 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,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” or “continue” or the negative of such terms or other comparable terminology. Examples of other forward-looking statements contained or incorporated by reference in this report include statements regarding:

- the expected effects of current and future worldwide economic conditions and demand for oil and natural gas and seismic equipment and services;
- future compliance with our debt financial covenants;
- expectations regarding the completion of our proposed joint venture with BGP;
- future benefits to be derived from our proposed joint venture with BGP;
- future availability of cash to fund our operations and pay our obligations;
- the timing of anticipated sales;
- future levels of spending by our customers;
- future oil and gas commodity prices;
- future cash needs and future sources of cash, including availability under our revolving line of credit facility;
- expected net revenues, income from operations and net income;
- the expected outcome of litigation and other claims against us regarding our business plan, our technology and our financial condition and results of operations;
- expected gross margins for our products and services;
- future benefits to our customers to be derived from new products and services, such as Scorpion and FireFly and our full-wave digital products and services;
- future growth rates for certain of our products and services;
- future sales to our significant customers;

- the degree and rate of future market acceptance of our new products and services;
- expectations regarding future mix of business and future asset recoveries;
- our expectations regarding oil and gas exploration and production companies and contractor end-users purchasing our more expensive, more technologically advanced products and services;
- the degree and rate of future market acceptance of our new products and services;
- expectations regarding future mix of business and future asset recoveries;
- 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;
- potential future acquisitions;
- future levels of capital expenditures;
- our ability to maintain our costs at consistent percentages of our revenues in the future;
- the outcome of pending or threatened disputes and other contingencies;
- future demand for seismic equipment and services;
- future seismic industry fundamentals;
- the adequacy of our future liquidity and capital resources;
- 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;
- 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:

We have a substantial amount of outstanding indebtedness, and we will need to pay or refinance our existing indebtedness or incur additional indebtedness, which may adversely affect our operations. Any failure to complete our proposed transactions with BGP could result in an event of default under our credit obligations.

As of December 31, 2009, we had outstanding total indebtedness of approximately \$277.4 million, net of a \$8.7 million non-cash debt discount associated with the \$40.0 million in Convertible Notes, and including capital lease obligations. Total indebtedness on that date included \$101.6 million in borrowings under five-year term indebtedness and \$118.0 million, excluding the non-cash debt discount, in borrowings under our revolving credit facility, in each case incurred under our amended commercial banking credit facility (the "Amended Credit Facility"). It also included \$19.1 million of indebtedness outstanding under a term secured equipment financing loan and \$35.0 million of subordinated unsecured debt outstanding under an amended and restated subordinated promissory note (the "Amended and Restated Subordinated Note") incurred in connection with the ARAM acquisition.

As of December 31, 2009 and February 22, 2010, we had available \$22 million (without giving effect to \$1.2 million and \$1.4 million, respectively, of outstanding letters of credit) of additional revolving credit borrowing capacity under our Amended Credit Facility.

In January 2009, Standard and Poor's Rating Services downgraded our outlook from "stable" to "negative" due to expectations of a weakening seismic market.

Our substantial levels of indebtedness and our other financial obligations increase the possibility that we may be unable to generate cash sufficient to pay, when due, the principal of, interest on or other amounts due, in respect of our outstanding indebtedness. Our substantial debt could also have other significant consequences. For example, it could:

- increase our vulnerability to general adverse economic, competitive and industry conditions;
- limit our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, general corporate purposes or other purposes on satisfactory terms, or at all;
- require us to dedicate a substantial portion of our cash flow from operations to the payment of our indebtedness, thereby reducing funds available to us for operations and any future business opportunities;
- expose us to the risk of increased interest rates because certain of our borrowings, including borrowings under our Amended Credit Facility, are at variable rates of interest;
- restrict us from making strategic acquisitions or cause us to make non-strategic divestitures;
- limit our planning flexibility for, or ability to react to, changes in our business and the industries in which we operate;
- limit our ability to adjust to changing market conditions; and
- place us at a competitive disadvantage to our competitors who may have less indebtedness or greater access to financing.

During 2009, we had disclosed that under certain circumstances (including lower-than-expected revenues from sales), we would not remain in compliance with certain of the financial covenants contained in our Amended Credit Facility. If we are not able to satisfy the covenants under the Amended Credit Facility, we would need to seek to amend, or seek additional covenant waivers under the facility. There can be no assurance that we would be able to obtain any such waivers or amendments, in which case we would likely seek to obtain new secured debt, unsecured debt or equity financing. However, there also can be no assurance that such debt or equity financing would be available on terms acceptable to us or at all.

In October 2009, we entered into bridge financing arrangements with Bank of China, New York Branch in connection with our proposed transactions with BGP, and obtained waivers of the financial covenants in the Amended Credit Facility for the fiscal quarters ending September 30, 2009, December 31, 2009, March 31, 2010 and June 30, 2010. Without these waivers, we would not have been in compliance with certain of our financial covenants at September 30, 2009 or December 31, 2009. However, our failure to comply with any of our other covenants under the Amended Credit Facility could result in an event of default that, if not cured or waived, could have a material adverse effect on our financial condition, results of operations and debt service capabilities.

We expect that upon the formation of the proposed land equipment joint venture with BGP and the closing and funding of the related transactions, we will repay our existing revolving credit loans and refinance our term loans under our Amended Credit Facility and repay the Amended and Restated Subordinated Note indebtedness.

However, if our proposed joint venture and related transactions with BGP were not to be completed, even for reasons beyond our control (such as us experiencing a material adverse event or condition that results in a material adverse effect on the our business, our prospects or results of operations), then the current waivers, upon notice from the lenders, would cease to be effective and we would at that time likely not be in

compliance with certain of the financial covenants. This could then result in an event of default. As the current waivers cover a period of less than twelve months from December 31, 2009, we have classified the long-term indebtedness under our revolving line of credit and term loan facility under our Amended Credit Facility as current at December 31, 2009. As a result of the cross-default provisions contained in our secured equipment financing instruments and our Amended and Restated Subordinated Note, we have also classified these long-term obligations as current at December 31, 2009. Defaults under these credit obligations and any resulting acceleration of indebtedness under their instruments would have a material adverse effect on our operations, financial condition, results of operations and cash flows.

If we fail to make any required payments under our credit instruments, or if we fail to comply with any of the financial and operating covenants included in those instruments, we will be in default under their terms. The lenders under such facilities could then accelerate the maturity of the indebtedness and foreclose upon our and our subsidiaries' assets that may secure such indebtedness. Other creditors might then accelerate other indebtedness under the cross-default provisions in those agreements. If our creditors accelerate the maturity of our indebtedness, we may not have sufficient assets to satisfy our debt obligations.

Even though we believe the joint venture with BGP will be completed as planned, there are certain events outside of our control that could cause the closing of the joint venture to be delayed, terminated or abandoned. In such event, we would need to seek to amend, or seek additional covenant waivers under, the Amended Credit Facility. Even though the lenders under the Amended Credit Facility have demonstrated their willingness to work with us in amending or providing sufficient waivers to our facility, there can be no assurance that we would be able to obtain any such waivers or amendments in the future. If we were unable to obtain such waivers or amendments from the lenders, we would likely seek to replace or pay off the Amended Credit Facility with new secured debt, unsecured debt or equity financing.

There is no guarantee that we will complete our proposed joint venture with BGP, and, if we do complete the joint venture, we may be subject to additional risks relating to our ability to perform our obligations under the joint venture, including funding future joint venture capital requirements.

In October 2009, we announced that we had entered into a Term Sheet with BGP dated as of October 23, 2009 (the "Term Sheet") to form a land equipment joint venture. We also entered into bridge financing arrangements consisting of the following:

- Two promissory notes (the "Convertible Notes") issued to Bank of China under the Amended Credit Facility for an aggregate principal amount of \$40.0 million, both convertible into shares of our common stock; and
- A Warrant Issuance Agreement with BGP, under which we granted to BGP a warrant (the "Warrant") to purchase shares of our common stock that may be exercised in lieu of conversion of the Convertible Notes.

Completion of the joint venture transactions contemplated in the Term Sheet is conditioned upon, among other things, approvals by Chinese and U.S. authorities and the lack of adverse regulatory actions that would materially prohibit, restrict or delay the completion of the joint venture transactions or the anticipated operations of the joint venture. There can be no assurances that we will obtain necessary approvals or that we will complete the joint venture transactions as contemplated by the Term Sheet. Our inability to complete the joint venture transactions as contemplated may impact adversely our ability to execute our business strategy and, consequently, the marketability and market price of our common stock. In addition, if we are not successful in completing the joint venture transactions as presently contemplated, we will likely have to modify our plans to refinance our senior secured indebtedness under our Amended Credit Facility, which may entail additional time and costs, and may prove unsuccessful. In addition, the limited waivers of our financial covenants contained in our Amended Credit Facility may be terminated in such event, and we may at that time be in violation of the financial covenants and other covenants contained in our Amended Credit Facility and the terms of other indebtedness that contain cross-default provisions.

If the transactions contemplated by the Term Sheet are not completed, it could have a number of adverse consequences for our business, including the following:

- we may lose the anticipated benefits of our proposed joint venture with BGP, which would include the potential savings from economies of scope and scale for our land seismic business and potential benefits from combined technological and new product development offerings;
- we may lose our ability to successfully refinance and restructure our senior secured indebtedness on terms favorable to our company, as contemplated by the Term Sheet;
- our business and operations may be harmed to the extent that customers, suppliers and other believe that our ability to successfully compete will be less effective without the joint venture or there is customer or employee uncertainty surrounding the future direction of our company;
- our results of operations, financial condition and cash flows may be adversely affected due to marketplace reaction, reduced sales levels and weakened financial condition caused by any of the factors mentioned above; and
- the exercise price under the Warrant and the conversion prices under the Convertible Notes could be adjusted and reduced below their current amounts to considerably lower-than-current-market-price levels.

Entering into joint ventures and alliances entails risks, including difficulties in developing and expanding the business of a newly formed joint venture, funding capital calls for the joint venture, exercising influence over the management and activities of 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. The completion of the joint venture is subject to, among other things, the completion of definitive documents governing the terms of the joint venture, and we cannot guarantee that, if completed, the joint venture operations will be successful. Any inability to meet our obligations as a joint venture partner under the joint venture could result in penalties and reduced percentage interest 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 product and services of the joint venture.

To comply with our indebtedness and other obligations, we will require a significant amount of cash and will be required to satisfy certain debt financial covenants. Our ability to generate cash and satisfy debt covenants depends on many factors beyond our control. Our failure to complete the proposed joint venture and related transactions with BGP and refinance our existing bank indebtedness could result in an event of default under our credit facilities.

Our ability to make payments on and to refinance our indebtedness and to fund our working capital needs and planned capital expenditures, will depend on our ability to generate cash in the future. This, to a certain extent, is subject to general economic, financial, competitive and other factors that are beyond our control.

We cannot assure you that our business will generate sufficient cash flows from operations or that future borrowings will be available to us under the Amended Credit Facility or otherwise in an amount sufficient to enable us to pay our indebtedness or to fund our other liquidity needs. We will need to repay or refinance our indebtedness on or before the maturity thereof. We cannot assure you that we will be able to refinance any of such indebtedness on commercially reasonable terms, or at all.

In addition, if for any reason we are unable to meet our debt service obligations, we would be in default under the terms of our agreements governing our outstanding debt. If such a default were to occur, the lenders under the Amended Credit Facility could elect to declare all amounts outstanding under the Amended Credit Facility immediately due and payable, and the lenders would not be obligated to continue to advance funds to us. In addition, if such a default were to occur, our other indebtedness would become immediately due and payable under their cross-default provisions.

The Amended Credit Facility and other outstanding debt instruments to which we are a party impose significant operating and financial restrictions, which may prevent us from capitalizing on business opportunities and taking other actions.

Subject to certain exceptions and qualifications, the Amended Credit Facility contains customary restrictions on our activities, including covenants that restrict us and our restricted subsidiaries from:

- incurring additional indebtedness and issuing preferred stock;
- creating liens on our assets;
- making certain investments or restricted payments;
- consolidating or merging with, or acquiring, another business;
- selling or otherwise disposing of our assets;
- paying dividends and making other distributions with respect to capital stock, or repurchasing, redeeming or retiring capital stock or subordinated debt; and
- entering into transactions with our affiliates.

The loan agreements for our \$19.1 million secured equipment financing with ICON ION, LLC contain a number of restrictive covenants that affect us, and our Amended and Restated Subordinated Note contains additional restrictions on our ability to incur additional debt. Any further debt financing we obtain is likely to have similarly restrictive covenants.

The Amended Credit Facility also contains covenants that require us to meet certain financial ratios and minimum thresholds. For example, the Amended Credit Facility requires that we and our domestic subsidiaries meet certain minimum fixed charge coverage ratio requirements, not exceed certain maximum leverage ratio limitations for each fiscal quarter, and maintain certain minimum tangible net worth. The lenders party to our Amended Credit Facility agreed in an amendment to the Credit Agreement dated October 23, 2009 to waive these financial covenants for the fiscal quarters ending September 30, 2009, December 31, 2009, March 31, 2010 and June 30, 2010. Without these waivers, we would not have been in compliance with certain of our financial covenants at September 30, 2009 or December 31, 2009.

If we were not able to satisfy all of these covenants, we would need to seek to amend, or seek one or more waivers of, the covenants under the Amended Credit Facility. If we cannot satisfy the covenants and are unable to obtain further waivers or amendments, the lenders could declare a default under the Amended Credit Facility. Any default under our Amended Credit Facility would allow the lenders under the facility the option to demand repayment of the indebtedness outstanding under the facility, and would allow certain other lenders to exercise their rights and remedies under cross-default provisions contained in their debt instruments. If these lenders were to exercise their rights to accelerate the indebtedness outstanding, there can be no assurance that we would be able to refinance or otherwise repay any amounts that may become accelerated under the agreements. The acceleration of a significant portion of our indebtedness would have a material adverse effect on our business, liquidity, and financial condition.

The restrictions in the Amended Credit Facility and our other debt instruments may prevent us from taking actions that we believe would be in the best interest of our business, and may make it difficult for us to successfully execute our business strategy or effectively compete with companies that are not similarly restricted. We also may incur future debt obligations that might subject us to additional restrictive covenants that could affect our financial and operational flexibility. We cannot assure you that we will be granted waivers or amendments to these agreements if for any reason we are unable to comply with these agreements or that we will be able to refinance our debt on terms acceptable to us, or at all. The breach of any of these covenants and restrictions could result in a default under the Amended Credit Facility and our other debt instruments. An event of default under our debt agreements would permit the holders of such indebtedness to declare all amounts borrowed to be due and payable.

Even though we believe the joint venture with BGP will be completed as planned, there are certain events outside of our control (such as our experiencing a material adverse event or condition that results in a material adverse effect on our business, its prospects or results of operations) that could cause the closing of the joint venture to be delayed, terminated or abandoned. In such event, we would need to seek to amend, or seek additional covenant waivers under, the Amended Credit Facility. Even though the lenders under the Amended Credit Facility have demonstrated their willingness to work with us in amending or providing sufficient waivers to our facility, there can be no assurance that we would be able to obtain any such waivers or amendments in the future. If we were unable to obtain such waivers or amendments from the lenders, we would likely seek to replace or pay off the Amended Credit Facility with new secured debt, unsecured debt or equity financing.

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 fiscal 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 in revenue recognition. 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 has been 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. For a description of this material weakness in our internal control over financial reporting identified in November 2009 and our remediation efforts as of December 31, 2009, see Item 9A. "Controls and Procedures."

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. We may experience controls deficiencies or material weakness in the future, which could adversely impact the accuracy and timeliness of our future reporting and reports and filings we make with the SEC.

If we, our option holders or others 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, the Convertible Notes issued under our Amended Credit Facility and our Warrant issued to BGP in connection with our proposed joint venture with BGP are convertible into or exercisable for shares of our common stock. The conversion of the Series D Preferred Stock or the Convertible Notes or the exercise of the Warrant would result in dilution, and could result in substantial dilution, to existing stockholders. Sales in the open market of the shares of common stock acquired upon such conversion or exercise may have the effect of reducing the then-current market prices 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 22, 2010, we had 118,695,952 shares of common stock issued and outstanding. Substantially all of these shares are available for public sale, subject in some cases to volume and other limitations or delivery of a prospectus. At December 31, 2009, we had outstanding stock options to purchase up to 7,766,188 shares of our common stock at a weighted average exercise price of \$7.65 per share. We also had, as of that date, 16,494 shares of common stock reserved for issuance under outstanding restricted stock unit awards.

Additionally, Fletcher International, Ltd., the holder of our Series D-1 Cumulative Convertible Preferred Stock, Series D-2 Cumulative Convertible Preferred Stock and Series D-3 Cumulative Convertible Preferred Stock (together, the "Series D Preferred Stock") currently has the right to convert the preferred shares it holds into 9,669,434 shares of our common stock. Under our agreement with Fletcher, the holder of our Series D Preferred Stock has the ability to sell the shares of our common stock (under effective registration statements) acquired by it upon conversion of the Series D Preferred Stock. In September 2009, Fletcher delivered a notice to us purporting to increase the number of shares of our common stock into which its preferred shares may convert from 9,669,434 shares to 11,669,434 shares, to become effective in November 2009. Because we believe that our agreement with Fletcher does not provide Fletcher, as holder, the right to demand such additional increase, we have filed a declaratory judgment action in the Court of Chancery of the State of Delaware asking the court to resolve the issue. See Item 3. "*Legal Proceedings.*"

We currently have other pending litigation with Fletcher in Delaware regarding issues involving our Series D Preferred Stock. See Item 3. "*Legal Proceedings.*"

The 18,500,000 shares of common stock we issued in June 2009 to certain institutional investors may be resold into the public markets in transactions pursuant to a currently-effective registration statement that was declared effective by the SEC on June 16, 2009. Thus, these purchasing institutional investors currently have the right to dispose of their shares in the public markets.

In October 2009, we issued the Convertible Notes and the Warrant in connection with our execution of the binding Term Sheet with BGP. These instruments provide that they will be initially convertible into, or exercisable for, in the aggregate, up to 14,285,714 shares of common stock. The exercise price under the Warrant and conversion prices under the Convertible Notes will be subject to adjustment upon the occurrence of a "Triggering Event." A "Triggering Event" will occur in the event that the joint venture transactions cannot be completed by March 31, 2010, solely as a result of the occurrence of a statement, order or other indication from any relevant governmental regulatory agency that (a) the transactions would not be approved, would be opposed, objected to or sanctioned or (b) the transactions or BGP's business and operations would be required to be altered (or upon the earlier abandonment of such transactions due to any such statement, indication or order). In such event, the exercise price and conversion price will be adjusted (but not to an amount that exceeds \$2.80 per share) to a price per share that is equal to 75% of the lowest trading price of our common stock over a ten-consecutive-trading-day period, beginning on and inclusive of the first trading day following the public announcement of any failure to complete such transactions (or the abandonment thereof), which failure or abandonment was the result of the Triggering Event. Such an adjustment would further dilute holders of our common stock.

The conversion prices of the Series D Preferred Stock, the exercise price of the Warrant and conversion prices of the Convertible Notes are also subject to certain customary anti-dilution adjustment.

Any conversion of the Convertible Notes or exercise of the Warrant will be conditioned upon certain governmental approvals from the Chinese government. At the closing of the transactions contemplated under the Term Sheet, it is expected that BGP (along with any permitted assignees and designees) will own 23,789,536 shares of common stock, whether through exercise of the Warrant, conversions of the Convertible Notes or by direct purchase of shares of common stock from us. Under a registration rights agreement that we entered into with BGP on October 23, 2009, we agreed to register certain resales of shares of common stock acquired by BGP or its assignees or designees under the Convertible Notes or the Warrant.

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. Likewise, the conversion of the Convertible Notes under our Amended Credit Facility and exercise of our Warrant issued to BGP in connection with our proposed joint venture with BGP will also dilute the ownership interests of existing stockholders. Sales in the public market of shares of common stock issued upon conversion or exercise would likely apply downward pressure on prevailing market prices of our common stock. In addition, the very existence of the outstanding shares of the Series D Preferred Stock, the Convertible Notes and the Warrant represents potential issuances of common stock upon their conversion or exercise, and could represent potential sales into the market of our

common stock to be acquired on conversion or exercise, which could also depress trading prices for our common stock.

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.

The current economic and credit environment and lower oil and natural gas prices could continue to 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 continue to be weak. The global recession has caused weakened demand and lower prices for oil and natural gas on a worldwide basis, which have tended to reduce the levels of exploration for oil and natural gas. Historically, demand for our products and services has been sensitive to the level of exploration spending by E&P companies and geophysical contractors. The demand for our products and services will continue to be reduced if the level of exploration expenditures continues to be 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.

The turmoil 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. Continued weakness in the financial markets could also have a material adverse effect on our ability to refinance all or a portion of our indebtedness incurred in connection with the ARAM acquisition and to otherwise fund our operational requirements.

Given the tight credit markets, 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 current economic conditions will persist, whether they 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 over the past 18 months, 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. This increased volatility, coupled with depressed economic conditions, could continue to have a depressing effect on the market price of our common stock.

If capital expenditures for E&P companies remain at reduced levels compared to recent 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 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 ability of the Organization of Petroleum Exporting Countries ("OPEC") to set and maintain production levels for oil;
- the expected rates of declining current production;
- the discovery rates of new oil and gas reserves;
- 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 products our competition offer, and these products may tend to be, for that reason, more expensive than comparable products of our competitors.

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 64% of our consolidated net revenues for the year ended December 31, 2009, 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, 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 our assets;
- 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.

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 variable rate indebtedness subjects us to interest rate risk, which could cause our debt service obligations to increase significantly.

Each borrowing under our Amended Credit Facility will bear interest, at our option, at either an alternate base rate or a LIBOR-based rate. As of December 31, 2009, the \$101.6 million in term loan indebtedness and the \$118.0 million, excluding a non-cash debt discount, in total revolving credit indebtedness under the Amended Credit Facility accrued interest using the LIBOR-based interest rate of 6.7% per annum. The average effective interest rate for the quarter ended December 31, 2009 under the LIBOR-based rates was 6.2% per annum.

Assuming that \$219.6 million in revolving and term loans are outstanding, 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 \$2.2 million. As of December 31, 2009, the weighted average interest rate on our outstanding indebtedness of \$277.4 million was 12.9% per annum. Our obligations to pay interest at relatively higher rates:

- require us to dedicate a greater portion of our cash flow for interest payments on our indebtedness and our other financial obligations, thereby reducing the availability of our cash flow to fund working capital and capital expenditures;

- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate; and
- place us at a competitive disadvantage compared to our competitors that have proportionately less debt.

Alternative funding could result in higher interest rates. However, there can be no assurance that alternative financial resources will be available promptly, on favorable terms or at all. Failure to obtain necessary funding could adversely affect our short-term liquidity and our ability to invest in research and development to fund new product and service initiatives, upgrade our process technology and manufacturing capabilities, and seek out potential acquisition candidates and could adversely affect our business, financial condition and operating results.

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. 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. 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 and the availability and equipping of marine vessels, can affect our ION Solutions division'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.

The technologies and businesses contributed by our company and BGP to the proposed joint venture may prove difficult to integrate, disrupt our business, dilute stockholder value and divert management attention.

The proposed formation of a joint venture with BGP is consistent with our overall business strategy of seeking new technologies, products and businesses to broaden the scope of our existing and planned product lines and technologies. The BGP joint venture involves the integration of multiple product lines and business models that previously have operated independently. This will be a complex and time consuming process. There can be no assurance that we will achieve the expected benefit of the proposed joint venture. This joint venture (if completed) 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.

The BGP joint venture and future transactions may expose us to:

- increased costs associated with the transaction 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 being 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 inability to generate revenues to offset associated transaction costs;
- the requirement to maintain uniform standards, controls and procedures; and
- the impairment of relationships with employees and customers as a result of the integration of management personnel from different companies.

Integration of the contributed businesses requires significant efforts from us and BGP, including coordinating existing business plans and research and development efforts. We may not be able to realize the operating efficiencies, cost savings or other benefits that we expect from the joint venture. The process of combining BGP's business with our business could cause an interruption of, or loss of momentum in, the operations and activities of the joint venture's business, as well as the possible loss of key personnel, and could distract our management's attention from the day-to-day operation of our Company's remaining businesses.

Intangible assets and goodwill 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 the first quarter of 2009, we determined that approximately \$38.0 million of intangible assets related to ARAM (included in our Land Imaging Systems reporting unit) had been impaired. We recorded the expense as of March 31, 2009 and reduced the carrying amount of 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, 2009 and 2008, the goodwill balance was \$52.0 million and \$49.8 million, respectively. At December 31, 2009 and 2008, the intangible asset balance was \$61.8 million and \$107.4 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 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, Canada, the Netherlands, China, Venezuela, India, 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 collectibility 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 and Canada. The subsidiaries in those countries receive their income and pay their expenses primarily in pounds sterling (GBP) and Canadian dollars (CAD), respectively. To the extent that transactions of these subsidiaries are settled in GBP or CAD, 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. For financial reporting purposes, such depreciation will negatively affect our reported results of operations since GBP- and CAD-denominated earnings 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 the GBP and CAD harms our competitive position against companies whose financial strength bears less correlation to the strength of the U.S. dollar. 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.

We are exposed to risks related to complex, highly technical products.

Our customers often require demanding specifications for product performance and reliability. 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.

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 transitions 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 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 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 estimates 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.

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

We invest significant amounts in acquiring and processing new seismic data to add to our ION Solutions' multi-client data library. A majority of these investments is funded by our customers, while the remainder is recovered through future data licensing fees. In 2009, we invested \$89.6 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 rapid decline of oil and natural gas prices in late 2008 have and could continue to cause E&P companies to significantly delay or reduce their current seismic capital spending budgets. Therefore, we may not be able to recover all of the costs of or earn any return on these investments. In periods in which sales do not meet original expectations, we may be required to record additional amortization and/or impairment charges to reduce the carrying value of our data library, which charges may be material to our results of operations in any period.

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 the years ended December 31, 2009, 2008 and 2007; however, our top five customers in total represented approximately 29%, 30% and 31%, 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. The loss of any of our significant customers to further consolidation could materially and adversely affect our results of operations and financial condition.

Our ION Solutions and Data Management Solutions segments increase our exposure to the risks experienced by more technology-intensive companies.

The businesses of ION Solutions and Data Management Solutions, being more concentrated in software, processing services, and proprietary technologies than our traditional business, have exposed us to the risks typically encountered by smaller technology companies that are more dependent on proprietary technology protection. These risks include:

- future competition from more established companies entering the market;
- product obsolescence;
- dependence upon continued growth of the market for seismic data processing;
- 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.

The contribution of our land equipment businesses to the joint venture exposes our company to additional risks. Please refer to the additional risks below.

Reservoir Exploration Technology (RXT) has been a significant customer of our Marine Imaging Systems segment. A loss of business from this customer could adversely affect our sales and financial condition if RXT is not replaced by another customer or customers.

In May 2007, we entered into a multi-year agreement with RXT under which they agreed to purchase a minimum of \$160 million in VectorSeis Ocean (VSO) systems and related equipment through 2011. In addition, this agreement entitles us to receive a royalty of 2.1% of revenues generated by RXT through the use of all VSO equipment commencing in January 2008 until the expiration of the agreement. In turn, RXT was granted exclusive rights to this product line through 2011. Because they did not purchase the minimum annual quantity of equipment, in February 2010, we notified RXT that they no longer have exclusive rights to the VSO product line.

For the years ended December 31, 2009 and 2008, \$9.3 million, or 2.2%, and \$49.0 million, or 7.2%, respectively, of our consolidated net revenues, were attributable to marine equipment sales to and royalty revenues from RXT. The loss of RXT as a customer or a continued significant reduction in their equipment or systems needs could reduce our sales volumes and revenues and lessen our cash flows, and thereby have a material adverse effect on our results of operations and financial condition. Unless we can broaden our customer base for these marine products, we can give no assurances that the revenues and cash flows from RXT, if lost, can be replaced. To the extent that the risks faced by RXT cause it to curtail its business activities or to make timely payments to its suppliers, we are subject to the same risks.

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.

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 weather events. Our Marine Imaging 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 this facility and evacuated and locked down the facility in preparation for Hurricane Katrina. This facility 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 facility until late September 2005. In September 2008, we lost power and 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.

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, the current global economic crisis 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 vibrator vehicles, our towed marine streamers, our redeployable ocean bottom cables, our Applied MEMS components, various components of VectorSeis Ocean, and certain electronic and ground components of our land acquisition systems. 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.

Our outsourcing relationships may require us to purchase inventory when demand for products produced by third-party manufacturers is low.

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 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. We currently have no purchase commitments with Colibrys for additional MEMS.

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. Any such claims, 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 effect 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 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. For instance, regulations regarding the protection of marine mammals in the Gulf of Mexico may reduce demand for our air guns and other marine products. 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 agreement with Fletcher 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 and our agreement with Fletcher 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 proposed terms of our 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, 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. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

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, 2009 were as follows:

<u>Operating Facilities</u>	<u>Square Footage</u>	<u>Segment</u>
Stafford, Texas	281,000	Land and Marine Imaging Systems
Calgary, Canada	139,000	Land Imaging Systems and ION Solutions
Houston, Texas	106,000	Global Headquarters and ION Solutions
Harahan, Louisiana	93,000	Marine Imaging Systems
Lacombe, Louisiana	87,000	Marine Imaging Systems
Jebel Ali, Dubai, United Arab Emirates . . .	40,000	International Sales Headquarters and Land Imaging Systems
Denver, Colorado	29,000	ION Solutions
Voorschoten, The Netherlands	29,000	Land Imaging Systems
Edinburgh, Scotland	<u>15,000</u>	Data Management Solutions
	<u>819,000</u>	

Each of these operating facilities is leased by us under a long-term lease agreement. These lease agreements have terms that expire ranging from 2010 to 2018. 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; 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 by WesternGeco are without merit and that the 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 asserted that WesternGeco misappropriated our proprietary technology and breached a confidentiality agreement by using our technology in its patents and products and 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.

Fletcher. During 2009, three lawsuits were filed in Delaware involving Fletcher International, Ltd. (“Fletcher”), the holder of shares of our Series D Preferred Stock.

- On July 10, 2009, Fletcher filed a “books and records” proceeding in the Delaware Court of Chancery under Section 220(b) of the Delaware General Corporation Law, styled *Fletcher International, Ltd. v. ION Geophysical Corporation f/k/a Input/Output, Inc.* Fletcher’s complaint asked the Court to require us to produce for its inspection a broad range of our documents and records relating to our ARAM acquisition and other matters. Section 220(b) allows stockholders of Delaware corporations to make a demand on the corporation for access to certain books and records of the corporation, provided that such demand is made with appropriate specificity and is made for a proper purpose. We responded by asserting that Fletcher had not requested the information with appropriate specificity or for a proper purpose as required by law. After a hearing on December 23, 2009, the court determined that most of Fletcher’s stated purposes for requesting the information were not valid or did not constitute “proper” purposes and issued a ruling denying in significant part the scope and breadth of the inspection sought by Fletcher.
- 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 that purported 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 gave Fletcher the right to issue only one notice to increase the Maximum Number (which Fletcher had exercised on November 8, 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 is permitted to deliver only one notice to increase the Maximum Number and that its purported second notice is legally invalid. Please refer to Item 7. “*Management’s*

Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — Sources of Capital.”

- On November 25, 2009, Fletcher filed a lawsuit against us and each 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 alleges, among other things, that we violated Fletcher’s consent rights by ION International S.à r.l., 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 duty to the company by allowing ION International S.à r.l. to issue the note without Fletcher’s consent. Fletcher is seeking a court order requiring ION International S.à r.l. to repay the \$10 million advanced to ION International S.à r.l. under the bridge loan and unspecified monetary damages. In the lawsuit, Fletcher is not claiming that it had a right to consent to any note issued by ION Geophysical Corporation, including the issuance by ION Geophysical Corporation of a \$30 million convertible promissory note to the Bank of China on October 27, 2009, as part of the bridge loan. We believe that Fletcher did not have the right to consent to the issuance of the bridge loan note by ION International S.à r.l. or any other promissory note and that the claims asserted by Fletcher in the lawsuit are without merit. We further believe 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 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 two-week 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. On October 13, 2009, the presiding trial judge signed and entered the judgment, awarding us the amount of the jury verdict. Under applicable law, we are also entitled to receive legal interest from the date of filing the lawsuit, plus our attorneys’ fees and costs. Through December 22, 2009, accrued legal interest totaled \$11.2 million, and interest will continue to accrue at the statutory annual rate of 8.5% until paid. Including the verdict amount and accrued interest, the total amount owed under the judgment as of December 22, 2009 was \$32.9 million plus our attorneys’ fees and costs. The judgment is currently on appeal.

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. Our products that use the VectorSeis technology include our 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. We have asked the court to issue a permanent injunction to prohibit Sercel from making, using, selling, offering for sale or importing any infringing products into the United States.

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. *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.

<u>Period</u>	<u>Price Range</u>	
	<u>High</u>	<u>Low</u>
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
Year ended December 31, 2008:		
Fourth Quarter	\$13.95	\$ 2.14
Third Quarter	17.61	12.64
Second Quarter	18.26	13.82
First Quarter	16.05	11.04

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 Amended Credit Facility prohibit us from paying dividends on or repurchasing shares of our common stock without the prior consent of the lenders.

Additionally, the terms of our Amended Credit Facility contain covenants that restrict us, subject to certain exceptions, from paying cash dividends on our common stock and repurchasing and acquiring shares of our common stock unless (i) there is no event of default under the Amended Credit Facility and (ii) the amount of cash used for cash dividends, repurchases and acquisitions does not, in the aggregate, exceed an amount equal to the excess of 30% of ION’s domestic consolidated net income for our most recently completed fiscal year over \$15.0 million. See Item 7. “*Management’s Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources.*”

On December 31, 2009, there were 737 holders of record of our common stock.

During the three months ended December 31, 2009, 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:

<u>Period</u>	<u>(a) Total Number of Shares Acquired</u>	<u>(b) Average Price Paid Per Share</u>	<u>(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Program</u>	<u>(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Program</u>
October 1, 2009 to October 31, 2009	—	\$ —	Not applicable	Not applicable
November 1, 2009 to November 30, 2009	173	\$2.53	Not applicable	Not applicable
December 1, 2009 to December 31, 2009	<u>39,376</u>	<u>\$5.76</u>	Not applicable	Not applicable
Total	<u>39,549</u>	<u>\$5.75</u>		

Item 6. Selected Financial Data

The selected consolidated financial data set forth below with respect to our consolidated statements of operations for the years ended December 31, 2009, 2008, 2007, 2006 and 2005, and with respect to our consolidated balance sheets at December 31, 2009, 2008, 2007, 2006 and 2005 have been derived from our audited consolidated financial statements. Our results of operations and financial condition have been affected by the acquisition of ARAM in September 2008 and impairments of assets during the periods presented, which may affect the comparability of the financial information. Our results of operations for the year ended December 31, 2009 and 2008 were negatively impacted from the impairment of our goodwill and intangibles assets totaling \$38.0 million and \$252.3 million, respectively, the fair value adjustment of the warrant, including amortization of a non-cash debt discount, totaling \$36.1 million, for the year-ended December 31, 2009 and from the beneficial conversion charge of \$68.8 million associated with our outstanding convertible preferred stock for the year ended December 31, 2008. This information should not be considered as being necessarily 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.

	<u>Years Ended December 31,</u>				
	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>2005</u>
	(In thousands, except for per share data)				
Statement of Operations Data:					
Product revenues	\$ 237,664	\$ 417,511	\$537,691	\$354,258	\$237,359
Service revenues	182,117	262,012	175,420	149,298	125,323
Net revenues	<u>419,781</u>	<u>679,523</u>	<u>713,111</u>	<u>503,556</u>	<u>362,682</u>
Cost of products	165,923	289,795	386,849	252,647	163,575
Cost of services	<u>121,720</u>	<u>181,980</u>	<u>119,679</u>	<u>91,592</u>	<u>86,619</u>
Gross profit	<u>132,138</u>	<u>207,748</u>	<u>206,583</u>	<u>159,317</u>	<u>112,488</u>
Operating expenses:					
Research, development and engineering	44,855	49,541	49,965	37,853	26,379
Marketing and sales	34,945	47,854	43,877	40,651	33,167
General and administrative	72,510	70,893	48,847	40,865	28,326
Impairment of goodwill and intangible assets	<u>38,044</u>	<u>252,283</u>	—	—	—
Total operating expenses	<u>190,354</u>	<u>420,571</u>	<u>142,689</u>	<u>119,369</u>	<u>87,872</u>

	Years Ended December 31,				
	2009	2008	2007	2006	2005
	(In thousands, except for per share data)				
Income (loss) from operations	(58,216)	(212,823)	63,894	39,948	24,616
Interest expense, including amortization of non-cash debt discount	(35,671)	(12,723)	(6,283)	(5,770)	(6,134)
Interest income	1,721	1,439	1,848	2,040	843
Fair value adjustment of the warrant	(29,401)	—	—	—	—
Impairment of cost method investment	(4,454)	—	—	—	—
Other income (expense)	(4,023)	4,200	(3,992)	(2,161)	820
Income (loss) before income taxes and change in accounting principle	(130,044)	(219,907)	55,467	34,057	20,145
Income tax expense (benefit)	(19,985)	1,131	12,823	5,114	1,366
Net income (loss) before change in accounting principle	(110,059)	(221,038)	42,644	28,943	18,779
Cumulative effect of change in accounting principle	—	—	—	398	—
Net income (loss)	(110,059)	(221,038)	42,644	29,341	18,779
Preferred stock dividends and accretion	3,500	3,889	2,388	2,429	1,635
Preferred stock beneficial conversion charge	—	68,786	—	—	—
Net income (loss) applicable to common shares	<u>\$(113,559)</u>	<u>\$(293,713)</u>	<u>\$ 40,256</u>	<u>\$ 26,912</u>	<u>\$ 17,144</u>
Net income (loss) per basic share before change in accounting principle	\$ (1.03)	\$ (3.06)	\$ 0.49	\$ 0.33	\$ 0.22
Cumulative effect of change in accounting principle	—	—	—	0.01	—
Net income (loss) per basic share	<u>\$ (1.03)</u>	<u>\$ (3.06)</u>	<u>\$ 0.49</u>	<u>\$ 0.34</u>	<u>\$ 0.22</u>
Net income (loss) per diluted share before change in accounting principle	\$ (1.03)	\$ (3.06)	\$ 0.45	\$ 0.32	\$ 0.21
Cumulative effect of change in accounting principle	—	—	—	0.01	—
Net income (loss) per diluted share	<u>\$ (1.03)</u>	<u>\$ (3.06)</u>	<u>\$ 0.45</u>	<u>\$ 0.33</u>	<u>\$ 0.21</u>
Weighted average number of common shares outstanding	<u>110,516</u>	<u>95,887</u>	<u>81,941</u>	<u>79,497</u>	<u>78,600</u>
Weighted average number of diluted shares outstanding	<u>110,516</u>	<u>95,887</u>	<u>97,321</u>	<u>95,182</u>	<u>79,842</u>
Balance Sheet Data (end of year):					
Working capital	\$ (59,018)	\$ 267,155	\$220,522	\$170,342	\$153,761
Total assets	748,186	861,431	709,149	655,136	537,861
Long-term debt, net of current maturities	6,249	253,510	9,842	70,974	71,541
Stockholders' equity	282,468	325,070	476,240	369,668	327,545
Other Data:					
Capital expenditures	\$ 2,966	\$ 17,539	\$ 11,375	\$ 13,704	\$ 5,304
Investment in multi-client library	89,635	110,362	64,279	39,087	19,678
Depreciation and amortization (other than multi-client library)	47,911	33,052	26,767	22,036	23,497
Amortization of multi-client library	48,449	80,532	37,662	25,011	10,707

The negative working capital seen above is the result of the re-classification of the majority of our long-term debt as current and as a result of the fair value of the warrant associated with our bridge financings arrangements. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations — Executive Summary — Our Current Debt Levels," "— Liquidity and Capital Resources — Sources of Capital — Meeting our Liquidity Requirements" and "— Proposed Joint Venture and Related Transactions with BGP" for further information.

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 that appear elsewhere in this Annual Report on Form 10-K.

Executive Summary

Our Business. We are a technology-focused seismic solutions company that provides advanced seismic data acquisition equipment, seismic software and seismic planning, processing and interpretation 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 contractors to generate high-resolution images of the Earth's subsurface for exploration, exploitation and production operations.

We operate our company through four business segments. Three of our business segments — Land Imaging Systems, Marine Imaging Systems and Data Management Solutions — make up our ION Systems division. Our fourth business segment is our ION Solutions division.

- Land Imaging Systems — cable-based, cableless and radio-controlled seismic data acquisition systems, digital geophone sensors, vibroseis vehicles (i.e., vibrator trucks) and source controllers for detonator and vibrator energy sources and also consisting of analog geophone sensors. After we complete our land equipment joint venture with BGP, all of these business lines, with the exception of analog geophone sensors, will become part of the joint venture. See "*— Proposed Land Joint Venture with BGP*."
- Marine Imaging 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).
- Data Management Solutions — software systems and related services for navigation and data management involving towed marine streamer and seabed operations.
- ION Solutions — advanced seismic data processing services for marine and land environments, seismic data libraries, and Integrated Seismic Solutions ("ISS") services.

Our current business strategy is predicated on successfully executing seven key imperatives:

- Increasing our market share and profitability in land acquisition systems and furthering the commercialization of FireFly, our cableless full-wave land data acquisition system, and our other land equipment technologies through our participation in the proposed land equipment joint venture with BGP;
- 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;
- Expanding our ION Solutions business in new regions with new customers and new land and marine service offerings, including proprietary services for owners and operators of oil and gas properties;
- Globalizing our ION Solutions data processing business by opening advanced imaging centers in new 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
- Leveraging our proposed land equipment joint venture with BGP 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.

Our Current Debt Levels. In connection with our acquisition in September 2008 of ARAM, we increased our total indebtedness significantly. As of December 31, 2009, we had outstanding total indebtedness of approximately \$277.4 million, net of a \$8.7 million non-cash debt discount associated with \$40.0 million in Convertible Notes, and including capital lease obligations. Total indebtedness on that date included \$101.6 million of outstanding five-year term indebtedness and \$118.0 million, excluding the non-cash debt discount, in outstanding revolving credit debt, in each case incurred under our amended commercial banking credit facility (the "Amended Credit Facility"). Total indebtedness on that date also included \$19.1 million in borrowings under our secured equipment financing transaction with ICON (described below) and \$35.0 million of subordinated indebtedness outstanding under an amended and restated subordinated promissory note (the "Amended and Restated Subordinated Note") that we had issued to one of ARAM's selling shareholders as part of the purchase price consideration for the ARAM acquisition.

On June 4, 2009, we completed a private placement transaction under which we issued and sold 18,500,000 shares of our common stock in privately-negotiated transactions, for aggregate gross proceeds of approximately \$40.7 million. The \$38.2 million of net proceeds from the offering, along with \$2.6 million of cash on hand, were applied to repay in full the outstanding indebtedness under a 2008 bridge loan agreement with Jefferies Finance LLC. The indebtedness under the bridge loan agreement had been scheduled to mature on January 31, 2010 and had an effective interest rate at the time of repayment of 25.3%. We also entered into an additional amendment to the Amended Credit Facility (the "Fifth Amendment"), which among other things, modified certain of the financial and other covenants contained in the Amended Credit Facility. See further discussion below at "*— Liquidity and Capital Resources — Sources of Capital*" and at Note 12 "*Notes Payable, Long-term Debt and Lease Obligations.*"

On June 29, 2009, we entered into a \$20.0 million secured equipment financing with ICON ION, LLC, an affiliate of ICON Capital Inc. ("ICON"), receiving \$12.5 million in funding on that date and \$7.5 million in July 2009. All borrowed indebtedness under the master loan agreements governing this equipment financing arrangement is scheduled to mature on July 31, 2014. We used the proceeds of the secured term loans for working capital and general corporate purposes. See further discussion below at "*— Liquidity and Capital Resources — Sources of Capital*" and at Note 12 "*Notes Payable, Long-term Debt and Lease Obligations.*"

Proposed Joint Venture with BGP. On October 23, 2009, we entered into a binding term sheet (the "Term Sheet") with BGP Inc., China National Petroleum Corporation, a company organized under the laws of the people's Republic of China ("BGP"), which sets forth, among other things, the principal terms for a proposed land equipment joint venture between BGP and us. In connection with the execution of the Term Sheet, we entered into an amendment to the Amended Credit Facility (the "Sixth Amendment") that, among other things, (i) increased the aggregate revolving commitment amount under the Amended Credit Facility from \$100.0 million to \$140.0 million, (ii) permitted Bank of China, New York Branch ("Bank of China"), to join the Amended Credit Facility as a lender, and (iii) modified, or provided limited waivers of, certain of the financial and other covenants contained in the Amended Credit Facility. Our bridge financing arrangement consisted of the following:

- Two promissory notes (the "Convertible Notes") issued to the Bank of China under the Amended Credit Facility for an aggregate principal amount of \$40.0 million, both convertible into shares of our common stock; and
- A Warrant Issuance Agreement with BGP, under which we granted to BGP a warrant (the "Warrant") to purchase shares of our common stock that may be exercised in lieu of conversion of the Convertible Notes.

See further discussion below at "*— Proposed Joint Venture and Related Transactions with BGP.*"

Waivers under Amended Credit Facility. As a result of our October 2009 bridge financing arrangements with Bank of China, we believe that our liquidity will be sufficient to fund our operations until such time as the transactions with BGP are completed or alternative financing could be obtained. Additionally, as a result of

our entering into the Sixth Amendment, we believe that the waivers of the financial covenants contained in the Amended Credit Facility for the fiscal quarters ending September 30, 2009, December 31, 2009, March 31, 2010 and June 30, 2010 should enable us to conduct our operations without defaulting under our Amended Credit Facility until the transactions under the Term Sheet are completed. We currently expect these transactions will be completed in March 2010. Without these waivers, we would not have been in compliance with certain of our financial covenants at September 30, 2009 or December 31, 2009.

If the proposed transactions under the Term Sheet are not completed by March 31, 2010, then the current waivers, upon notice from the lenders after a designated period of time, would cease to be effective and we at that time would likely not be in compliance with certain of the financial covenants contained in the Amended Credit Facility, which could then result in an event of default. As the current waivers cover a period of less than twelve months from December 31, 2009, we have classified our long-term indebtedness under our revolving line of credit and term loan facility under the Amended Credit Facility as current at December 31, 2009. As a result of the cross-default provisions in our secured equipment financing and our amended and restated subordinated seller note, we have also classified these long-term obligations as current at December 31, 2009.

Even though we believe the joint venture with BGP will be completed as planned, there are certain events outside of our control (such as us experiencing a material adverse event or condition that results in a material adverse effect on our business, our prospects or results of operations) that could cause the closing of the joint venture to be delayed, terminated or abandoned. In such event, we would need to seek to amend, or seek additional covenant waivers under, the Amended Credit Facility. Even though the lenders under the Amended Credit Facility have demonstrated their willingness to work with us in amending or providing sufficient waivers to its facility, there can be no assurance that we would be able to obtain any such waivers or amendments in the future. If we were to be unable to obtain such waivers or amendments from the lenders, we would likely seek to replace or pay off the Amended Credit Facility with new secured debt, unsecured debt or equity financing.

As part of the formation of the joint venture, we have been in discussions with various financial institutions (both domestic and international) on the refinancing of our debt. As a result of these discussions and with the recent improvements within the financial markets, we believe that in the unlikely event the joint venture is not completed as planned, we would be able to obtain additional debt or equity financings prior to defaulting on our current debt obligations. However, there also can be no assurance that such debt or equity financing would be available on terms acceptable to us or at all.

Economic Conditions and Cost Containments. 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 has resulted in sharply curtailed demand for oil and gas exploration activities in North America and other regions. The uncertainty surrounding future economic activity levels and the tightening of credit availability resulted in decreased sales levels for several of our businesses in 2009. Our land seismic equipment businesses in North America and Russia have been particularly adversely affected.

Our seismic contractor customers and the E&P companies that are users of our products, services and technology have generally reduced their capital spending levels since 2008. We also expect that exploration and production expenditures will remain at restrained levels to the extent E&P companies and seismic contractors are limited in their access to the credit markets as a result of further disruptions in, or continued conservative lending practices in, the credit markets. There continues to be significant uncertainty about future activity levels and the impact on our businesses. In particular, our North America and Russia land systems business and our vibroseis truck business experienced steep sales declines in 2009, and uncertain prospects for 2010.

In response to the global economic downturn, we took measures to reduce operating costs in our businesses during 2008 and 2009. In addition, we slowed our capital spending, including our investments in our multi-client data libraries in 2009. For the year ended December 31, 2009, total capital expenditures were

\$92.6 million, compared to \$127.9 million for the year ended December 31, 2008. We are projecting capital expenditures for 2010 to be between \$100 million to \$110 million. Of that total, we expect to spend approximately \$90 million to \$100 million on investments in our multi-client data library, and we anticipate that a majority of this investment will be underwritten by our customers. To the extent that our customers' commitments do not reach an acceptable level of pre-funding, the amount of our anticipated investment could in likely respect decline. The remaining sums are expected to be funded from internally generated cash.

We are continuing to explore ways to reduce our cost structure. We have taken a deliberate approach to analyzing product and service demands in our business and are taking a more conservative approach in offering extended financing terms to our customers. Our most significant cost reduction to date has related to reduced headcount. Beginning in the fourth quarter of 2008 and continuing through 2009, we reduced our headcount by 384 positions, or approximately 26% of our employee headcount, in order to adjust to the lower levels of activity. Including all contractors and employees, we reduced our headcount by 489 positions, or 27%. In April 2009, we also initiated a salary reduction program that reduced employee salaries. The salary reductions reduced affected employees' annual base salaries by 12% for our chief executive officer, chief operating officer and chief financial officer, 10% for all other executives and senior management, and 5% for most other employees. Our Board also elected to implement a 15% reduction in director fees. In addition to the salary reduction program, we suspended our matching contributions to employee 401(k) plan contributions.

We reinstated all employees salaries and director fees at their previous levels following the October 23, 2009 announcement of our company and BGP entering into a binding Term Sheet providing for, among other things, the formation of a joint venture between our company and BGP involving our land-based seismic data acquisition equipment business (see "*— Proposed Joint Venture and Related Transactions with BGP*" below).

We will continue to fund strategic programs to position us for the expected recovery in economic activity. Overall, we will give priority to generating cash flows and reducing our cost structure, while maintaining our long-term commitment to continued technology development. Our business is mainly technology-based. We are not in the field crew business, and therefore do not have large amounts of capital and other resources invested in vessels or other assets necessary to support contracted seismic data acquisition services, nor do we have large manufacturing facilities. This cost structure gives us the flexibility to adjust our expense base when downward economic cycles affect our industry.

While the current global recession and the decline in oil and gas prices have slowed demand for our products and services in the near term, we believe that our industry's long-term prospects remain favorable because of the declining rates in oil and gas production and the relatively small number of new discoveries of oil and gas reserves. We believe that technology that adds a competitive advantage through cost reductions or improvements in productivity will continue to be valued in our marketplace, even in the current difficult market. For example, we believe that our new technologies, such as FireFly, DigiFIN and Orca, will continue to attract interest from our customers because those technologies are designed to deliver improvements in image quality within more productive delivery systems. We have adjusted much of our sales efforts for our ARIES land seismic systems from North America to international sales channels (other than Russia).

International oil companies (IOCs) continue to have difficulty accessing new sources of supply for their exploration activities, partially as a result of the growth of national oil companies. This situation is also affected by increasing environmental concerns, particularly in North America, where companies may be denied access to some of the most promising onshore and offshore exploration opportunities. It is estimated that approximately 85%-90% of the world's reserves are controlled by national oil companies, which increasingly prefer to develop resources on their own or by working directly with the oil field services and equipment providers. These dynamics often prevent capital, technology and project management capabilities from being optimally deployed on the best exploration and production opportunities, which results in global supply capacity being less than it otherwise might be. As a consequence, the pace of new supply additions may be insufficient to keep up with demand once the global recession ends.

2009 Developments. Our overall total net revenues of \$419.8 million for the year ended December 31, 2009 decreased \$259.7 million, or 38.2%, compared to total net revenues for the year ended December 31, 2008. At the same time, our overall gross profit percentage improved for the year ended 2009 to 31.5%

compared to 30.6% for the year ended 2008. For the year ended December 31, 2009, we recorded a loss from operations of (\$58.2) million (which includes the effect of an impairment of intangible assets charge of \$38.0 million taken in the first quarter of 2009), compared to (\$212.8) million (which includes the effect of impairments of goodwill and intangible asset charges of \$252.3 million taken in the fourth quarter of 2008) for the year ended December 31, 2008.

Developments during 2009 and early 2010 include the following:

- In January 2009, we announced our first delivery of a multi-thousand station version 2.0 FireFly system equipped with digital, full-wave VectorSeis sensors to the world's largest land contractor. The deployment in the second quarter of 2009 (we recognized the revenue from this sale in the fourth quarter of 2009) of this FireFly system occurred in a producing hydrocarbon basin containing reservoirs that have proven difficult to image with conventional seismic techniques.
- In March 2009, we announced that we had signed an agreement with The Polarcus Group of Companies for the provision of seismic data processing services. Under the agreement, we will provide hardware, software and geophysicists in order to support a seismic project's entire imaging lifecycle, from the vessel to an onshore data processing center.
- In April 2009, we announced that a 6,100 station FireFly system will be utilized by a major oil company to undertake two high channel count, multicomponent (full-wave) seismic acquisition programs in northeast Texas, and, in July 2009, we announced that our client had sanctioned the second phase of the program.
- In April 2009, we announced the first commercial sale of our cable-based ARIES II seismic recording platform to one of the world's largest geophysical services providers. The sale includes two 5,000 channel ARIES II recording systems that the customer plans to deploy on upcoming, high-channel count seismic surveys.
- In May 2009, we announced that an 8,000 station FireFly system will be utilized by Compania Mexicana de Exploraciones (Comesa), an oilfield services company majority-owned by PEMEX, the national oil company of Mexico, on three projects in Mexico.
- In May 2009, we announced that we had successfully acquired an additional 6,200 kilometers of regional seismic data offshore India's western coast as part of our ongoing IndiaSPAN™ program. Another 3,800 kilometers has since been acquired off the east coast of India.
- In July 2009, we announced that we had successfully completed the data processing and interpretation for ArgentineSPAN™, a basin-scale seismic program offshore Argentina. ArgentineSPAN contains approximately 11,800 kilometers of new, regional data.
- In July 2009, we announced that we had successfully acquired 5,000 kilometers of regional seismic data covering the Bight Basin and Ceduna Sub-basin offshore southern Australia. Known as BightSPAN™, this latest addition to our global BasinSPAN seismic data library offers the first regional geologic study of Australia's deepwater southern coast.
- In October 2009, we announced our proposed joint venture with BGP and the related bridge financing transactions. See "*— Proposed Joint Venture and Related Transactions with BGP.*"
- In January 2010, we announced that we had extended our BrasilSPAN™ program, which makes it one of the largest 2-D seismic datasets in our multi-client data library. The program currently contains 42,000 km of data off the coast of South America.

Proposed Joint Venture and Related Transactions with BGP

On October 23, 2009, we entered into a binding Term Sheet with BGP, which provides for, among other things, the formation of a joint venture between our company and BGP involving our land-based seismic data acquisition equipment business.

The Term Sheet contemplates that we will enter into a purchase agreement with BGP to form the joint venture. We expect to form the joint venture entity as a wholly-owned subsidiary of ION Geophysical Corporation and will contribute to the joint venture certain assets and related liabilities that relate to the proposed joint venture business. Then, BGP will acquire from us a 51% equity interest in the joint venture for an aggregate purchase price of \$108.5 million cash and will contribute to the joint venture certain of its assets and related liabilities that relate to the joint venture's business. The assets of each party to be contributed to the joint venture will include seismic recording systems, inventory, certain intellectual property rights and contract rights, all as may be necessary to or principally used in the conduct or operation of the businesses to be contributed to the joint venture as presently conducted or operated by each party.

The scope of the joint venture's business is defined in the Term Sheet as being the business of designing, development, engineering, manufacturing, research and development, distribution, sales and marketing and field support of land-based equipment used in seismic data acquisition for the petroleum industry. Excluded from the scope of the joint venture's business will be (x) the analog sensor businesses of our company and BGP and (y) 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 Marine Imaging Systems, Data Management Solutions and ION Solutions, which includes GXT's Imaging Solutions, Integrated Seismic Solutions (ISS) and BasinSPAN and seismic data libraries — will remain owned and operated by us and will not comprise a part of the joint venture.

Under the Term Sheet, the parties have agreed to use their best efforts to cause the closing of the joint venture and related transactions to occur as soon as practicable following the execution of the definitive transaction documents, and on or before the later to occur of the following dates: (i) December 31, 2009 or (ii) 10 business days following the date on which all necessary regulatory approvals (including receiving clearance from the Committee on Foreign Investment in the United States (CFIUS) to complete the transactions) have been obtained, but in any event, no later than March 31, 2010. The parties' obligations under the Term Sheet may be terminated (a) by written agreement of the parties, (b) by either party in the event that such party's conditions have not been satisfied on or before March 31, 2010 (subject to a 15-day cure period) or (c) by either party in the event that certain mutual conditions have not been satisfied on or before March 31, 2010. In addition, BGP and we have each agreed to pay the other a break-up fee of \$5.0 million if either party determines to terminate its obligations under the Term Sheet because the other party has failed to satisfy certain conditions, including conditions precedent to closing that (x) the other party has not experienced a material adverse event or condition that has resulted in a material adverse effect on its business, prospects and results of operations change, (y) the other party has not breached any of its representations and warranties contained in the Term sheet and such representations and warranties continue to be true and correct and (z) with respect to BGP's obligations under the Term Sheet, we have not suffered any material default or accelerations of any of our liabilities.

On October 27, 2009, we borrowed an aggregate of \$40.0 million in the form of revolving credit bridge loan financing from Bank of China, which was evidenced by the Convertible Notes. This borrowing was pursuant to and permitted by the terms of the Sixth Amendment to the Credit Facility, which increased the aggregate revolving commitment amount under the accordion feature provisions of the Amended Credit Facility from \$100.0 million to \$140.0 million and permitted the Bank of China to join the Amended Credit Facility as a lender.

The Convertible Notes provide that at the stated initial conversion price of \$2.80 per share, the full \$40.0 million principal amount under the Convertible Notes would be convertible into 14,285,714 shares of Common Stock. The Convertible Notes provide that the conversion price and the number of shares into which the notes may be converted are subject to adjustment under certain terms and conditions similar to those contained in the Warrant.

As part of BGP arranging for the Bank of China to join our Amended Credit Facility, we granted to BGP the Warrant. The Warrant will be exercisable, in whole or in part, at any time and from time to time, subject to the conditions described below. The Warrant will initially entitle the holder thereof to purchase a number of shares of common stock equal to \$40.0 million divided by the exercise price of \$2.80 per share, subject to

adjustment as described below. At the initial exercise price of \$2.80 per share, at such time as the Warrant becomes exercisable, it would initially be fully exercisable for 14,285,714 shares of common stock.

The Warrant will only become exercisable and the Convertible Notes will only become convertible upon receipt of certain governmental approvals. Any conversions of the Convertible Notes and prior exercises of the Warrant will reduce the dollar amount under the Warrant into which the exercise price may be divided to determine the number of shares that may be acquired upon exercise.

Additionally, the Term Sheet provides that when the joint venture transactions are closed:

- BGP will have purchased approximately 23.8 million shares of our common stock for \$66.6 million and thereby own, before giving effect to the issuance of those shares, approximately 19.99% of our outstanding common stock.
- To the extent that shares are not purchased by BGP under the Warrant prior to closing, the new revolving credit loans from Bank of China, evidenced by the Convertible Notes will convert into approximately 14.3 million shares of ION common stock and will be credited against the approximately 23.8 million shares of ION stock to be purchased by BGP at the transaction closing.
- ION will appoint a designee of BGP to its Board of Directors to serve with the current nine members of ION's Board of Directors.
- BGP will arrange for our then-outstanding long-term debt under the Amended Credit Facility (currently \$101.6 million outstanding at February 22, 2010) to be refinanced at the joint venture closing.
- We will use a portion of the proceeds from the transactions to pay off and retire our outstanding indebtedness under our current revolving credit facility (after giving effect to the \$40.0 million in additional revolving credit borrowings under our existing Amended Credit Facility, approximately \$118.0 million is currently outstanding at February 22, 2010) and \$35.0 million in seller subordinated indebtedness incurred in connection with our acquisition of ARAM in September 2008.
- We will receive a new \$100 million revolving credit facility at the joint venture closing.
- The \$19.1 million (as of December 31, 2009) secured equipment financing transaction with ICON will be assigned to and become indebtedness of the joint venture.

The proposed joint venture is intended to provide a number of benefits and opportunities, including the following:

- Preferred access to BGP, currently the world's largest land seismic contractor;
- Anticipated improved economies of scope and scale in our land data acquisition system manufacturing and sales operations, enabling us to deliver products in a more timely manner at an overall lower cost to its customers;
- Combining our strengths in land equipment technologies with BGP's emerging geophysical product portfolio and expertise in operating land seismic acquisition crews, which should permit new joint venture products to be designed and field-tested for reliability, quality and productivity to the benefit of all customers; and
- Aligning the joint venture engineering teams to develop innovative, market-leading land recording systems, 3C (full-wave) sensor and vibroseis products.

We believe that the joint venture will enable us to continue developing land systems and sensor technologies with lessened primary capital requirements through our partnership with BGP.

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, 2009, compared to those for fiscal 2008 and 2007 (in thousands, except per share amounts):

	Years Ended December 31,		
	2009	2008	2007
Net revenues:			
ION Systems Division:			
Land Imaging Systems	\$ 103,038	\$ 200,493	\$325,037
Marine Imaging Systems	103,024	182,710	177,685
Data Management Solutions	33,733	37,240	37,660
Total ION Systems Division	<u>239,795</u>	<u>420,443</u>	<u>540,382</u>
ION Solutions Division	<u>179,986</u>	<u>259,080</u>	<u>172,729</u>
Total	<u>\$ 419,781</u>	<u>\$ 679,523</u>	<u>\$713,111</u>
Income (loss) from operations:			
ION Systems Division:			
Land Imaging Systems	\$ (39,126)	\$ (13,662)	\$ 28,681
Marine Imaging Systems	29,632	52,624	44,727
Data Management Solutions	19,970	22,298	17,290
Total ION Systems Division	10,476	61,260	90,698
ION Solutions Division	27,747	40,534	21,646
Corporate	(58,395)	(62,334)	(48,450)
Impairment of goodwill and intangible assets	<u>(38,044)</u>	<u>(252,283)</u>	<u>—</u>
Total	<u>\$ (58,216)</u>	<u>\$(212,823)</u>	<u>\$ 63,894</u>
Net income (loss) applicable to common shares	<u>\$(113,559)</u>	<u>\$(293,713)</u>	<u>\$ 40,256</u>
Basic net income (loss) per common share	<u>\$ (1.03)</u>	<u>\$ (3.06)</u>	<u>\$ 0.49</u>
Diluted net income per (loss) common share	<u>\$ (1.03)</u>	<u>\$ (3.06)</u>	<u>\$ 0.45</u>

We intend that the discussion of our financial condition and results of operations that follows 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.

We anticipate that we will account for our 49% interest in the proposed joint venture with BGP under the equity method of accounting under U.S. generally accepted accounting principles. As a result, after the joint venture is formed, we will no longer include in our results of operations all of the net revenues and costs and expenses attributable to the contributed businesses on a going forward basis. In our results of operations, our proportional share of the joint venture's net income (loss) will be reported as a single line item, and our investment in the joint venture will be increased by our proportional share of joint venture net income and decreased by our proportional payment of dividends made. Additionally, our equity investment in the joint venture will be reported as a single line item on our balance sheet, and the assets and liabilities of the contributed business currently consolidated in our balance sheet as of December 31, 2009 will be removed. See “— *Proposed Joint Venture and Related Transactions with BGP* ” below.

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, 2009 Compared to Year Ended December 31, 2008

Net Revenues. Net revenues of \$419.8 million for the year ended December 31, 2009 decreased \$259.7 million, compared to the corresponding period of 2008, principally due to the continued decline in the global economy, which caused decreased activity and demand for seismic products and services, most notably in our Land Imaging Systems segment. Land Imaging Systems' net revenues decreased by \$97.5 million, to \$103.0 million compared to \$200.5 million during the twelve months ended December 31, 2008. Despite the inclusion of ARAM's full-year operating results, the division was strongly impacted by the market decline, which resulted in reduced sales across all product lines compared to 2008. Marine Imaging Systems' net revenues decreased \$79.7 million to \$103.0 million, compared to \$182.7 million during the year ended December 31, 2008, principally due to the continued decline in the global economy and to delays in the scheduled completion and commissioning of new marine vessels being introduced into the market, which would otherwise have been outfitted by our marine products. This decrease was partially offset by increased sales of our DigiFIN positioning systems. Our Data Management Solutions' net revenues decreased slightly by \$3.5 million, to \$33.7 million compared to \$37.2 million in 2008. This decrease was due entirely to the effect of foreign currency exchange rate fluctuations compared to a year ago.

ION Solutions' net revenues decreased \$79.1 million, to \$180.0 million, compared to \$259.1 million in 2008. The results for 2009 reflected decreased multi-client data library sales and new venture program sales, partially offset by increases in data processing service revenues.

Gross Profit and Gross Profit Percentage. Gross profit of \$132.1 million for the year ended December 31, 2009 decreased \$75.6 million compared to the prior year. Gross profit percentage for the twelve months ended December 31, 2009 was 31.5% compared to 30.6% in the prior year. The 0.9% increase in our gross margin percentage was primarily due to the mix of business, especially in our Marine Imaging Systems and our ION Solutions segments. This increase was partially offset by lower margins in our Land Imaging System division, which were principally the result of increased amortization expense related to ARAM's acquired intangibles and the headcount reduction restructuring charges taken during 2009. The margins for 2009 in our Data Management Solutions segment remained flat due to product mix sold when compared to 2008 margin levels.

Research, Development and Engineering. Research, development and engineering expense was \$44.9 million, or 10.7% of net revenues, for the year ended December 31, 2009, a decrease of \$4.6 million compared to \$49.5 million, or 7.3% of net revenues, for the corresponding period last year. The decrease 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 \$34.9 million, or 8.3% of net revenues, for the year ended December 31, 2009 decreased \$13.0 million compared to \$47.9 million, or 7.0% of net revenues, for the corresponding period last year. The decrease in our sales and marketing expenditures reflects 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 and the timing of the expenses throughout the year. Based upon the recently completed restructuring programs, we expect to continue to incur lower costs related to our marketing and sales efforts than in prior periods as mentioned in "— Executive Summary" above.

General and Administrative. General and administrative expense of \$72.5 million for the year ended December 31, 2009 increased \$1.6 million compared to \$70.9 million in the prior year. General and administrative expenses as a percentage of net revenues for the years ended December 31, 2009 and 2008 were 17.3% and 10.4%, respectively. The increase in general and administrative expense was mainly due to additional stock-based compensation expense related to adjustments between estimated and actual award forfeitures of \$4.5 million, of which \$3.3 million is an out-of-period adjustment. Additionally, general and administrative expenses also reflect the inclusion of ARAM's expenses in 2009 and severance charges related to reductions in headcount. This increase is partially offset by decreased professional legal fees, travel

expenses and general office expenses related to cost reduction measures. Based upon the recently completed restructuring programs, we expect to incur lower costs related to our general and administrative activities than in prior periods as mentioned in “— *Executive Summary*” above.

Impairment of Intangible Assets. At March 31, 2009, we further evaluated our intangible assets for potential impairment. Based upon our evaluation and given the current market conditions, we determined that approximately \$38.0 million of proprietary technology and customer relationships (written off entirely) related to ARAM acquired intangibles were impaired. In the fourth quarter of 2008, we recorded an impairment charge of \$10.1 million related to ARAM’s customer relationships, trade name and non-compete agreements. Our net book value associated with ARAM’s acquired intangibles is \$34.8 million at December 31, 2009 and has a remaining weighted average life of 6.2 years.

Interest Expense, including Amortization of a Non-Cash Debt Discount. Interest expense of \$35.7 million for the year ended December 31, 2009 increased \$23.0 million compared to \$12.7 million for the corresponding period last year. The increase is 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 the year ended December 31, 2009, we amortized to interest expense \$6.7 million of a non-cash debt discount associated with the Convertible Notes. The remaining unamortized non-cash debt discount was \$8.7 million at December 31, 2009 and will be recognized over the expected term of the Convertible Notes (March 31, 2010). See further discussion of the Convertible Notes and other bridge financing arrangements related to BGP and the Bank of China at “— *Proposed Joint Venture and Related Transactions with BGP*” and “— *Liquidity and Capital Resources — Sources of Capital.*” Because of these increased levels of borrowed indebtedness, our interest expense will continue to be significantly higher in 2010 than we experienced in prior years; however, with the closing of the proposed joint venture with BGP and the subsequent re-financing of the Amended Credit Facility, the Company believes that its interest expense will decrease compared to 2009.

Fair Value Adjustment of the Warrant. We are required to account for separately and adjust to fair value the Warrant. We recorded a non-cash fair value adjustment of \$29.4 million, reflecting a total non-cash liability associated with the Warrant of \$44.8 million at December 31, 2009. We will continue to adjust the Warrant to fair value until such time as it is exercised or converted into our equity at the closing of the joint venture, which is expected to occur in March 2010. Also, associated with the Warrant, we recorded a \$15.4 million non-cash discount on the Convertible Notes, which is being amortized to interest expense (see discussion above) over the expected term of the notes (March 31, 2010).

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 the year ended December 31, 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 the year ended December 31, 2009 was (\$20.0) million compared to \$1.1 million of tax expense for the year ended December 31, 2008. The increase in tax benefits during 2009 primarily relates to reduced consolidated income from operations. We continue to maintain a valuation allowance for a significant portion of our U.S. net deferred tax assets. Our effective tax rate for the year ended December 31, 2009 was 15.4% as compared to (0.5%) for the similar period during 2008. The increase in our effective tax rate relates primarily to the 2008 impairment of goodwill, which has no tax benefit.

Preferred Stock Dividends. The preferred stock dividend relates to our Series D-1, Series D-2 and Series D-3 Cumulative Convertible Preferred Stock (collectively referred to as the Series D Preferred Stock)

that we issued in February 2005, December 2007 and February 2008, respectively. Quarterly dividends must be paid in cash. Dividends are paid at a rate equal to the greater of (i) 5% per annum or (ii) the three month LIBOR rate on the last day of the immediately preceding calendar quarter plus 2¹/₂% per annum. All dividends paid to date on the Series D Preferred Stock have been paid in cash. The Series D Preferred Stock dividend rate was 5.0% at December 31, 2009.

Year Ended December 31, 2008 Compared to Year Ended December 31, 2007

Net Revenues. Net revenues of \$679.5 million for the year ended December 31, 2008 decreased \$33.6 million, compared to the corresponding period of 2007, principally due to the sharp decline in the global economy, which caused decreased activity and demand for seismic services, most notably in our Land Imaging Systems segment. Land Imaging Systems' net revenues decreased by \$124.5 million, to \$200.5 million compared to \$325.0 million during the twelve months ended December 31, 2007. Despite the inclusion of ARAM's operating results, the division was strongly impacted by the market decline, which resulted in reduced sales of both land systems and vibroseis trucks. This decrease was also made more pronounced by the inclusion of several large 2007 sales of our land acquisition systems that were not duplicated in 2008, including the sale of 14 land acquisition systems to ONGC, the sale of our initial version of FireFly and significantly increased vibrator truck sales in 2007. Marine Imaging Systems' net revenues increased \$5.0 million to \$182.7 million, compared to \$177.7 million during the year ended December 31, 2007, principally due to stronger sales of our marine positioning products, including sales related to the full commercialization of our DigiFIN advanced streamer command and control system, the first two commercial sales of our DigiSTREAMER system and stronger sales of our marine seismic data acquisition products. We delivered to RXT the fifth VSO system in 2008; however, VSO system sales decreased compared to 2007 mainly due to the timing of the sales. Our Data Management Solutions' net revenues decreased slightly by \$0.5 million, to \$37.2 million compared to \$37.7 million in 2007. This change primarily reflects continued energy industry demand for marine seismic work, slightly offset by the impact of foreign currency exchange rates between the GBP and the U.S. Dollar in 2008.

ION Solutions' net revenues increased \$86.4 million, to \$259.1 million, or 50%, compared to \$172.7 million in 2007. This increase was due to larger demand related to higher proprietary processing revenues, pre-funded multi-client seismic surveys primarily off the coasts of Alaska and South America and sales of off-the-shelf seismic data sales. Sales of our pre-funded multi-client seismic surveys and of off-the-shelf seismic data increased approximately 60% in 2008 compared to 2007.

Gross Profit and Gross Profit Percentage. Gross profit of \$207.7 million for the year ended December 31, 2008 increased \$1.1 million compared to the prior year. Gross profit percentage for the twelve months ended December 31, 2008 was 31% compared to 29% in the prior year. The 2% improvement in our gross margin percentage was primarily due to the mix of business, including an increase in system sales as well as higher margin sales from our Data Management Solutions segment, including significantly increased sales of our Orca software. This increase was partially offset by slightly lower margins in our Land Imaging System division relating to inventory write downs directly related to the integration activities of ARAM into our current operating segment and in our ION Solutions segment due to the change in product mix with higher levels of proprietary processing sales. During 2008, we also wrote down the carrying values of certain of our mature analog land systems and related equipment inventory, resulting in a \$10.1 million charge.

Research, Development and Engineering. Research, development and engineering expense was \$49.5 million, or 7.3% of net revenues, for the year ended December 31, 2008, a decrease of \$0.5 million compared to \$50.0 million, or 7.0% of net revenues, for the corresponding period last year. We expect to continue to incur research, development and engineering expenses in 2009 at a more conservative rate than in prior years, as we continue to invest in our next generation of seismic acquisition products and services.

Marketing and Sales. Marketing and sales expense of \$47.9 million, or 7.0% of net revenues, for the year ended December 31, 2008 increased \$4.0 million compared to \$43.9 million, or 6.2% of net revenues, for the corresponding period last year. The increase in our sales and marketing expenditures reflects the hiring of additional sales personnel, increased exhibit and convention costs and increased travel associated with our

global marketing efforts. This increase was partially offset by a decrease in our corporate branding expenses in 2008, due to the higher expenses in 2007 associated with our name change that year.

General and Administrative. General and administrative expense of \$70.8 million for the year ended December 31, 2008 increased \$21.7 million compared to \$49.1 million in the prior year. General and administrative expenses as a percentage of net revenues for the years ended December 31, 2008 and 2007 were 10.4% and 6.9%, respectively. The increase in expenditures was primarily due to increases in our bad debt reserves of \$4.6 million, in our professional fees relating to our financing efforts of \$5.7 million, in salaries and related expenses of \$8.7 million due to the hiring of additional personnel and an increase in general office expenses related to our acquisition of ARAM. This increase was partially offset by a decrease in bonus expense due to the lower operating performance compared to 2007's operating performance.

Impairment of Goodwill and Intangible Assets. At December 31, 2008, we evaluated our reporting units for potential impairment. Based upon our evaluation and given the current market conditions, we determined that approximately \$252.3 million of goodwill and intangible assets related to our Land Imaging Systems, ARAM Systems and ION Solutions reporting units were impaired. We recorded the expense as of December 31, 2008 and reduced the carrying amount of our goodwill and intangible assets.

Income Tax Expense. Income tax expense for the year ended December 31, 2008 was \$1.1 million compared to income tax expense of \$12.8 million for the twelve months ended December 31, 2007. The decrease in tax expense during 2008 primarily relates to reduced consolidated income from operations and changes to the valuation allowance on U.S. deferred tax assets. This decrease was partially offset by deferred taxes on the utilization of acquired net operating losses. We continue to maintain a valuation allowance for a significant portion of our U.S. net deferred tax assets. Our effective tax rate for the year ended December 31, 2008 was (0.5%) as compared to 23.1% for the similar period during 2007. The decreased effective tax rate for 2008 relates primarily to the impairment of goodwill, which has no tax benefit, and a reduction in the valuation allowance on U.S. deferred tax assets offset by deferred tax expense related to the utilization of acquired net operating losses of \$3.5 million. The 2007 and 2008 effective tax rates were lower than the statutory rate due to the goodwill impairment in 2008 and to the utilization of previously reserved U.S. deferred tax assets in both 2007 and 2008.

Preferred Stock Dividends and Accretion. The preferred stock dividend relates to our Series D Preferred Stock that we issued in February 2005, December 2007 and February 2008. Quarterly dividends must be paid in cash. Dividends are paid at a rate equal to the greater of (i) 5% per annum or (ii) the three month LIBOR rate on the last day of the immediately preceding calendar quarter plus 2¹/₂% per annum. All dividends paid to date on the Series D Preferred Stock have been paid in cash. The Series D Preferred Stock dividend rate was 6.55% at December 31, 2008.

Adjustments from Preferred Stock Redemption and Conversion Features. Our results of operations for 2008 reflected additional credits to and charges against our earnings resulting from our outstanding Series D-1 Cumulative Convertible Preferred Stock (the "Series D-1 Preferred Stock"), Series D-2 Cumulative Convertible Preferred Stock (the "Series D-2 Preferred Stock") and Series D-3 Cumulative Convertible Preferred Stock (the "Series D-3 Preferred Stock" and together with the Series D-1 Preferred Stock and the Series D-2 Preferred Stock, the "Series D Preferred Stock").

On November 28, 2008, we delivered a notice (the "Reset Notice") to Fletcher International, Ltd. ("Fletcher") of our election to reset the conversion prices on our outstanding shares of Series D Preferred Stock. See "*— Liquidity and Capital Resources — Sources of Capital — Cumulative Convertible Preferred Stock.*" Fletcher is the holder of all of the outstanding shares of our Series D Preferred Stock. By delivering the Reset Notice to Fletcher, we reset the conversion prices on all of our Series D Preferred Stock to \$4.4517 per share, in accordance with the terms of our agreement with Fletcher dated as of February 15, 2005 (as amended, the "Fletcher Agreement"). 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 would be required to (i) thereafter pay all dividends on shares of Series D Preferred Stock only in cash and (ii) elect to either (a) satisfy future redemption obligations by distributing only cash (or a combination of cash and common stock), or (b) reset the conversion prices of all of outstanding shares of Series D Preferred Stock to the

Minimum Price, in which event the Series D Preferred Stock holder would have no further rights to call for the redemption of those shares.

We had originally classified the preferred stock outside of stockholders' equity on the balance sheet below total liabilities. However, with the termination of the redemption rights, there are no other provisions that require cash redemption. Therefore, in the fourth quarter of 2008, we reclassified the preferred stock to stockholders' equity.

The redemption features of our outstanding Series D-2 Preferred Stock and Series D-3 Preferred Stock had been considered embedded derivatives that were required to be bifurcated and accounted for separately at their fair value during 2008. These features had been bifurcated as a separate line item in the liabilities section of our consolidated balance sheet. For each quarter during 2008, these redemption features had been re-measured at quarter-end at their fair value with any resulting gain or loss recognized below income from operations and reflected in earnings for the period. As a result of the election we made under the Reset Notice, Fletcher is no longer permitted to redeem any shares of our Series D Preferred Stock and the original value of the redemption features of \$1.2 million was credited to and reflected in other income in the fourth quarter of 2008.

Preferred Stock Beneficial Conversion Charge. As a result of the Reset Notice and the adjustment in November 2008 of the conversion prices for the Series D Preferred Stock to the Minimum Price of \$4.4517 per share under the Fletcher Agreement, we recognized in the fourth quarter of 2008 a contingent beneficial conversion feature of the Series D Preferred Stock as a non-cash charge to earnings in the amount of \$68.8 million. Under applicable financial accounting guidance, the adjustment of reducing the conversion price was deemed to be equivalent to value being transferred to the holder of the Series D Preferred Stock, with such holder thereby realizing enhanced economic value compared to the holders of other ION securities that did not hold a beneficial conversion feature. This feature was calculated at its intrinsic value at the original commitment date, and the amount of the charge was limited to the amount of proceeds allocated to the convertible instruments (i.e. the Series D Preferred Stock).

Liquidity and Capital Resources

Sources of Capital

Our cash requirements include our working capital requirements, debt service payments, dividend payments on our preferred stock, data acquisitions and capital expenditures. In recent years, our primary sources of funds have been cash flow from operations, existing cash balances, equity issuances and our revolving credit facility (see "*— Revolving Line of Credit and Term Loan Facilities*" below).

At December 31, 2009, our outstanding credit facilities and debt consisted of:

- Our Amended Credit Facility, comprised of:
 - An amended revolving line of credit sub-facility (including the additional \$40.0 million of revolving credit indebtedness evidenced by the Convertible Notes); and
 - A \$125.0 million original principal amount term loan;
 - A \$20.0 million secured equipment financing term loan; and
 - A \$35.0 million Amended and Restated Subordinated Promissory Note.

Revolving Line of Credit and Term Loan Facilities. In July 2008, we, ION Sàrl, and certain of our domestic and other foreign subsidiaries (as guarantors) entered into a \$100 million amended and restated revolving credit facility under the terms of an amended credit agreement with our commercial bank lenders (this agreement, as it has been further amended, is referred to our "Amended Credit Agreement"). The revolving credit facility terminates on July 3, 2013. This amended and restated revolving credit facility provided us with additional flexibility for our international capital needs by not only permitting borrowings by one of our foreign subsidiaries under the facility but also providing us the ability to borrow in alternative currencies.

On September 17, 2008, we added a new \$125.0 million term loan sub-facility under the Amended Credit Agreement, and borrowed \$125.0 million in term loan indebtedness and \$72.0 million under the revolving credit sub-facility to fund a portion of the cash consideration for the ARAM acquisition.

The interest rate on borrowings under our Amended Credit Facility is, at our option, (i) an alternate base rate (either the prime rate of HSBC Bank USA, N.A., or a federal funds effective rate plus 0.50%, plus an applicable interest margin) or (ii) for Eurodollar borrowings and borrowings in Euros, pounds sterling or Canadian dollars, a LIBOR-based rate, plus an applicable interest margin. The amount of the applicable interest margin is determined by reference to a leverage ratio of total funded debt to consolidated EBITDA for the four most recent trailing fiscal quarters. The interest rate margins currently range from 2.875% to 5.5% for alternate base rate borrowings, and from 3.875% to 6.5% for Eurodollar borrowings. As of December 31, 2009, both the \$101.6 million in term loan indebtedness under the Amended Credit Facility and the \$118.0 million in total revolving credit indebtedness under the Amended Credit Facility accrued interest at the then-applicable LIBOR-based interest rate of 6.7% per annum. The average effective interest rates for the quarter ended December 31, 2009 under the LIBOR-based rates for both the term loan indebtedness and the revolving credit indebtedness were 6.2%.

At March 31, 2009, we were in compliance with all of the financial covenants under the terms of the Amended Credit Facility. However, based upon our results for that quarter and our then-current operating forecast for the remainder of 2009, we determined that it was probable that, if we did not take any mitigating actions, we would not be in compliance for the period ending September 30, 2009 with one or more financial covenants under the Amended Credit Facility's debt agreements. As a result, we approached the lenders under the Amended Credit Facility to obtain amendments to relax certain of these financial covenants and pursued the private placement of our common stock, which, along with our cash on hand, generated sufficient funds to repay the outstanding indebtedness under a bridge loan agreement that we had entered into with Jefferies Finance, LLC in December 2008. See further discussion of the private placement transaction below at "*— Private Placement of 18.5 Million Shares of Common Stock.*"

Fifth Amendment to Amended Credit Facility. In June 2009, we entered into an additional amendment (the "Fifth Amendment") to our Amended Credit Facility that, among other things, modified certain of the financial and other covenants contained in the Amended Credit Facility and permitted us to repay our Jefferies bridge loan indebtedness. Principal modifications to the terms of the Amended Credit Agreement resulting from the Fifth Amendment included the following:

- An increase in applicable maximum interest rate margins in the event that our leverage ratio exceeds 2.25 to 1.0 — from 4.5% to up to 5.5% for alternate base rate loans, and from 5.5% to up to 6.5% for LIBOR-rate loans;
- A modified restricted payments covenant that permitted us to apply up to \$6.0 million of our available cash on hand to prepay the indebtedness under the Jefferies bridge loan agreement;
- A new defined term, "Excess Cash Flow," and a new requirement for us to apply 50% of our Excess Cash Flow, if any, calculated with respect to a just-completed fiscal year, to the prepayment of the term loan under the Amended Credit Agreement if our fixed charge coverage ratio or our leverage ratio for the just-completed fiscal year does not meet certain requirements; and
- An amendment to fix the maximum revolving credit facility (accordion feature) amount to which the Amended Credit Facility could be increased at \$140.0 million.

The Amended Credit Agreement contains covenants that restrict us, 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 similar transactions, entering into transactions with affiliates, making certain sales or other dispositions of assets, making certain investments, acquiring other businesses and entering into certain sale-leaseback transactions with respect to certain of our properties;

- Paying cash dividends on our common stock and repurchasing and acquiring shares of our common stock unless (i) there is no event of default under the Amended Credit Facility and (ii) the amount of cash used for cash dividends, repurchases and acquisitions does not, in the aggregate, exceed an amount equal to the excess of 30% of our domestic consolidated net income for our most recently completed fiscal year over \$15.0 million.

The Amended Credit Facility requires us to be in compliance with certain financial covenants, including requirements for us and our domestic subsidiaries to:

- maintain a minimum fixed charge coverage ratio (which must be not less than 1.10 to 1.0 for the fiscal quarter ended December 31, 2009; 1.15 to 1.0 for the fiscal quarter ending March 31, 2010; 1.25 to 1.0 for the fiscal quarter ending June 30, 2010; 1.35 to 1.0 for the fiscal quarter ending September 30, 2010; and 1.50 to 1.0 the fiscal quarter ending December 31, 2010 and thereafter);
- not exceed a maximum leverage ratio (3.00 to 1.0 for the fiscal quarters ended December 31, 2009; 2.75 to 1.0 for the fiscal quarter ending March 31, 2010 and June 30, 2010; 2.5 to 1.0 for the fiscal quarter ending September 30, 2010; and 2.25 to 1.0 the fiscal quarter ending December 31, 2010 and thereafter); and
- maintain a minimum tangible net worth of at least 80% of our tangible net worth as of September 18, 2008 (the date that we completed our acquisition of ARAM), plus 50% of our consolidated net income for each quarter thereafter, and 80% of the proceeds from any mandatorily convertible notes and preferred and common stock issuances for each quarter thereafter.

The term loan indebtedness we borrowed under the Amended Credit Facility is subject to scheduled quarterly amortization payments of \$4.7 million per quarter until December 31, 2010. On that date, the quarterly principal amortization increases to \$6.3 million per quarter until December 31, 2012, when the quarterly principal amortization amount increases to \$9.4 million for each quarter until maturity on September 17, 2013. The term loan indebtedness matures on September 17, 2013, but the administrative agent under the Amended Credit Facility may accelerate the maturity date to a date that is six months prior to the maturity date of any additional debt financing that we may incur to refinance certain indebtedness incurred in connection with the ARAM acquisition, by giving us written notice of such acceleration between September 17, 2012 and October 17, 2012.

The Amended Credit Facility contains customary event of default provisions (including an event of default upon any “change of control” event affecting us), the occurrence of which could lead to an acceleration of ION’s obligations under the Amended Credit Facility.

Sixth Amendment to Amended Credit Facility. On October 23, 2009, we entered into a Sixth Amendment to the Amended and Restated Credit Agreement that, among other things, (i) increased the aggregate revolving commitment amount under the Amended Credit Facility from \$100.0 million to \$140.0 million, (ii) permitted Bank of China, New York Branch, to join the Amended Credit Facility, (iii) modified, or provided limited waivers of, certain of the financial and other covenants contained in the Amended Credit Facility (including waivers to the extent necessary to permit the issuance of the BGP Warrant) and (iv) permitted the principal amount of the new revolving credit loans from Bank of China (as evidenced by the Convertible Notes) to be convertible into shares of our common stock. We borrowed on October 27, 2009 an aggregate of \$40.0 million in revolving credit indebtedness under the Amended Credit Facility (as amended by the Sixth Amendment), pursuant to the Convertible Notes. The Convertible Notes were issued by ION Geophysical Corporation and ION Sàrl to Bank of China under the terms and conditions of the Amended Credit Facility. The outstanding indebtedness under the Convertible Notes is currently scheduled to mature on the maturity date of the revolving credit indebtedness under the Amended Credit Facility, which is July 3, 2013.

Under the terms of the Amended Credit Agreement, up to \$84.0 million (or its equivalent in foreign currencies) is available for non-U.S. borrowings by ION Sàrl and up to \$105.0 million is available for domestic borrowings in the U.S.; however, the total level of outstanding borrowings under the revolving credit facility cannot exceed \$140.0 million. Revolving credit borrowings under the Amended Credit Facility are available to fund our working capital needs, to finance acquisitions, investments and share repurchases and for

general corporate purposes. In addition, the Amended Credit Facility includes a \$35.0 million sub-limit for the issuance of documentary and stand-by letters of credit, of which \$1.2 million was outstanding at December 31, 2009. Borrowings under the Amended Credit Facility may be prepaid without penalty.

As a result of our October 2009 bridge financing arrangements with Bank of China in connection with the Sixth Amendment, we believe that our liquidity will be sufficient to fund our operations for the first quarter of 2010. The execution of the Sixth Amendment, which included waivers of the financial covenants contained in the Amended Credit Facility for the fiscal quarters ending September 30, 2009, December 31, 2009, March 31, 2010 and June 30, 2010, should enable us to conduct our operations without defaulting under the Amended Credit Facility until the transactions with BGP are completed, which we currently believe will occur in March 2010. Without these waivers, we would not have been in compliance with certain of our financial covenants at September 30, 2009 or December 31, 2009.

If the proposed transactions under the Term Sheet are not completed by March 31, 2010, then the current waivers, upon notice from the lenders after a designated period of time, would cease to be effective and we, at that time, would likely not be in compliance with certain of the financial covenants contained in the Amended Credit Facility, which could then result in an event of default. As the current waivers cover a period of less than twelve months from December 31, 2009, we have classified our long-term indebtedness under our revolving line of credit and term loan facility under the Amended Credit Facility as current at December 31, 2009. As a result of the cross-default provisions in our secured equipment financing and our amended and restated subordinated seller note, we have also classified these long-term obligations as current at December 31, 2009.

Even though we believe the joint venture with BGP will be completed as planned, there are certain events outside of our control (such as our experiencing a material adverse event or condition that results in a material adverse effect on our business, its prospects or results of operations) that could cause the closing of the joint venture to be delayed, terminated or abandoned. In such event, we would need to seek to amend, or seek additional covenant waivers under, the Amended Credit Facility. Even though the lenders under the Amended Credit Facility have demonstrated their willingness to work with us in amending or providing sufficient waivers to our facility, there can be no assurance that we would be able to obtain any such waivers or amendments in the future. If we were unable to obtain such waivers or amendments from the lenders, we would likely seek to replace or pay off the Amended Credit Facility with new secured debt, unsecured debt or equity financing.

Convertible Notes and Warrant. On October 27, 2009, we borrowed an aggregate of \$40.0 million in the form of revolving credit bridge financing arranged by BGP from Bank of China, New York Branch, which was evidenced by the Convertible Notes. This borrowing was permitted by the terms of the Sixth Amendment to the Credit Facility, which increased the aggregate revolving commitment amount under the accordion feature provisions of the Amended Credit Facility from \$100.0 million to \$140.0 million and permitted Bank of China to join the Amended Credit Facility as a lender. As further described above, the total outstanding indebtedness under the Amended Credit Facility, which includes the Bank of China bridge loans, was \$118.0 million, excluding the non-cash debt discount, at December 31, 2009.

The Convertible Notes, issued in October 2009 in connection with the execution of the Term Sheet with BGP, provide that at the stated initial conversion price of \$2.80 per share, the full \$40.0 million principal amount under the Convertible Notes would be convertible into 14,285,714 shares of Common Stock. The Convertible Notes provide that the conversion price and the number of shares into which the notes may be converted are subject to adjustment under certain terms and conditions similar to those contained in the Warrant.

As part of BGP arranging for the Bank of China to join our Amended Credit Facility, we granted to BGP the Warrant. The Warrant will be exercisable, in whole or in part, at any time and from time to time, subject to the conditions described below. The Warrant will initially entitle the holder thereof to purchase a number of shares of common stock equal to \$40.0 million divided by the exercise price of \$2.80 per share, subject to adjustment as described below. At the initial exercise price of \$2.80 per share, at such time as the Warrant becomes exercisable, it would initially be fully exercisable for 14,285,714 shares of common stock.

The Warrant will only become exercisable and the Convertible Notes will only become convertible upon receipt of certain governmental approvals. Any conversions of the Convertible Notes and prior exercises of the Warrant will reduce the dollar amount under the Warrant into which the exercise price may be divided to determine the number of shares that may be acquired upon exercise.

The exercise price under the Warrant and conversion prices under the Convertible Notes will be subject to adjustment upon the occurrence of a “Triggering Event.” A “Triggering Event” will occur in the event that the joint venture transactions cannot be completed by March 31, 2010, solely as a result of the occurrence of a statement, order or other indication from any relevant governmental regulatory agency that (a) the transactions would not be approved, would be opposed, objected to or sanctioned or (b) the transactions or BGP’s business and operations would be required to be altered (or upon the earlier abandonment of such transactions due to any such statement, indication or order). In such event, the exercise price and conversion price per share will be adjusted (but not to an amount that exceeds \$2.80 per share) to a price per share that is equal to 75% of the lowest trading price of our common stock over a ten-consecutive-trading-day period, beginning on and inclusive of the first trading day following the public announcement of any failure to complete such transactions (or the abandonment thereof), which failure of abandonment was the result of the Triggering Event. The exercise price of the Warrant and conversion prices of the Convertible notes are also subject to certain customary anti-dilution adjustment.

The Warrant provides for certain cashless exercise rights that are exercisable by the holder of the Warrant in the event that certain governmental approvals from the People’s Republic of China permitting the exercise of the Warrant for cash are not obtained.

At the same time as the closing of the joint venture transactions, all of the then-outstanding principal amounts under the Convertible Notes will be automatically converted into shares of common stock unless, at the option of the holder of the Warrant, the holder elects to exercise the Warrant in whole or in part, in lieu of the full conversion of such remaining principal amounts under the Convertible Notes.

Assuming that no adjustments occur to the exercise or conversion prices of (or the number of shares to be issued under) the Warrant or the Convertible Notes prior to closing the joint venture transactions, the Term Sheet provides that at the closing of the transactions, BGP would purchase directly from us a number of shares of Common Stock at a purchase price of \$2.80 per shares such that, when added to the total number of shares of Common Stock that may have been previously issued pursuant to conversion of the Convertible Notes and/or exercise of the Warrant, BGP (and its transferees and permitted assignees) would own, together, before giving effect to the issuance of those shares, approximately 19.99% of the issued and outstanding shares of our Common Stock (i.e. 23,789,536 shares).

See further discussion of the accounting impact of the Warrant at “— *Critical Accounting Policies and Estimates — Fair Value of the Warrant.*”

Secured Equipment Financing. On June 29, 2009, we entered into a \$20.0 million secured equipment financing transaction with ICON ION, LLC (“ICON”), an affiliate of ICON Capital Inc. Two master loan agreements were entered into with ICON in connection with this transaction: (i) we, ARAM Rentals Corporation, a Nova Scotia unlimited company (“ARC”), and ICON entered into a Canadian Master Loan and Security Agreement dated as of June 29, 2009 with regard to certain equipment leased to customers by ARC, and (ii) we, ARAM Seismic Rentals, Inc., a Texas corporation (“ASRI”), and ICON entered into a Master Loan and Security Agreement (U.S.) dated as of June 29, 2009 with regard to certain equipment leased to customers by ASRI (collectively, the “ICON Loan Agreements”). All borrowed indebtedness under the ICON Loan Agreements is scheduled to mature on July 31, 2014. We used the proceeds of the secured term loans for working capital and general corporate purposes.

Under the terms of the ICON Loan Agreements, ICON advanced \$12.5 million on June 29, 2009 and \$7.5 million on July 20, 2009. The indebtedness under the ICON Loan Agreements is secured by first-priority liens in (a) certain of our ARAM seismic rental equipment located in the United States and Canada (subject to certain exceptions), and certain additional and replacement seismic equipment, (b) written leases or other agreements evidencing payment obligations relating to the leasing by ARC or ASRI of this equipment to their

respective customers, including their related receivables, (c) the cash or cash equivalents held by such subsidiaries and (d) any proceeds thereof.

The obligations of each of ARC and ASRI under the ICON Loan Agreements are guaranteed by us under a Guaranty dated as of June 29, 2009 (the "ICON Guaranty"). The ICON Loan Agreements and the ICON Guaranty constitute permitted indebtedness under the Amended Credit Facility.

Under both ICON Loan Agreements, interest on the outstanding principal amount will accrue at a fixed interest rate of 15% per annum calculated monthly, and is payable monthly on the first day of each month. Principal and interest are payable, commencing on September 1, 2009, in 60 monthly installments until the maturity date, when all remaining outstanding principal and interest will be due and payable. Pursuant to the ICON Loan Agreements, in connection with the closing in June 2009, ARC and ASRI paid ICON a non-refundable upfront fee of \$0.3 million. In addition, ICON will receive an administrative fee equal to 0.5% of the aggregate principal amount of advances under the ICON Loan Agreements, payable at the end of each of the first four years during their terms. Inclusive of these additional fees, the effective interest rate on the ICON loan was 16.3% as of December 31, 2009.

Beginning on August 1, 2012, and continuing until January 31, 2014, we may prepay the outstanding principal balances of the loans in full by giving ICON 30 days' prior written notice and paying a prepayment fee equal to 3.0% of the then-outstanding principal amount of the loans. Commencing on February 1, 2014, the loans may be prepaid in full without payment of any prepayment penalty or fee, subject to our giving ICON 30 days' prior written notice.

The ICON Loan Agreements contain certain cross-default provisions with respect to defaults under our Amended Credit Facility. Therefore, similar to the current classification of the Amended Credit Facility indebtedness, we have also classified this long-term indebtedness as current.

Assuming that the BGP joint venture transaction is completed as planned, we anticipate that the primary obligation to repay the ICON indebtedness will be assumed by the joint venture, and the obligations under the Guaranty will be assumed by a joint venture entity, although it is also expected that we would remain secondarily liable on the Guaranty by backstopping the joint venture entity's guaranty of the primary repayment obligations.

Amended and Restated Subordinated Seller Note. As part of the purchase price for the ARAM acquisition, one of our subsidiaries issued an unsecured senior promissory note (the "Senior Seller Note") in the original principal amount of \$35.0 million to Maison Mazel Ltd., one of the selling shareholders of ARAM. On December 30, 2008, in connection with other acquisition refinancing transactions that were completed on that date, the Senior Seller Note was amended and restated pursuant to an Amended and Restated Subordinated Promissory Note ("the Amended and Restated Subordinated Note") issued to Maison Mazel, the selling shareholder. The principal amount of the Amended and Restated Subordinated Note is \$35.0 million and matures on September 17, 2013. We also entered into a guaranty dated December 30, 2008, whereby we guaranteed on a subordinated basis the subsidiary's repayment obligations under the Amended and Restated Subordinated Note.

Effective April 9, 2009, (i) the subsidiary transferred the Amended and Restated Subordinated Note to us and we assumed in full the obligations of ION Sub under such note, and (ii) our guaranty of payment of the indebtedness under the Amended and Restated Subordinated Note was terminated. The subsidiary was also released from its obligations under the Amended and Restated Promissory Note by Maison Mazel.

Interest on the outstanding principal amount under the Amended and Restated Subordinated Note accrues at the rate of fifteen percent (15%) per annum, and is payable quarterly.

The terms of the Amended and Restated Subordinated Note provide that the particular covenants contained in the Amended Credit Agreement (or in any successor agreement or instrument) that restricts our ability to incur additional indebtedness will be incorporated into the Amended and Restated Subordinated Note. However, under the Amended and Restated Subordinated Note, neither Maison Mazel nor any other

holder of the Amended and Restated Subordinated Note will have a separate right to consent to or approve any amendment or waiver of the covenant as contained in the Amended Credit Facility.

In addition, we have agreed that if we incur indebtedness under any financing that:

- qualifies as “Long Term Junior Financing” (as defined in the Amended Credit Agreement),
- results from a refinancing or replacement of the Amended Credit Facility such that the aggregate principal indebtedness (including revolving commitments) thereunder would be in excess of \$275.0 million, or
- qualifies as unsecured indebtedness for borrowed money that is evidenced by notes or debentures, has a maturity date of at least five years after the date of its issuance and results in total gross cash proceeds to us of not less than \$40.0 million,

then we will be obligated to repay in full from the total proceeds from such financing the then-outstanding principal of and interest on the Amended and Restated Subordinated Note.

The indebtedness under the Amended and Restated Subordinated Note is subordinated to the prior payment in full of our “Senior Obligations,” which are defined in the Amended and Restated Subordinated Note as the principal, premium (if any), interest and other amounts that become due in connection with:

- our obligations under the Amended Credit Facility,
- our liabilities with respect to capital leases and obligations that qualify as a “Sale/Leaseback Agreement” (as that term is defined in the Amended Credit Agreement),
- guarantees of the indebtedness described above, and
- debentures, notes or other evidences of indebtedness issued in exchange for, or in the refinancing of, the Senior Obligations described above, or any indebtedness arising from the payment and satisfaction of any Senior Obligations by a guarantor.

It is contemplated that at the closing of the joint venture transactions, we will obtain sources of financing sufficient to enable us to repay in full the indebtedness under the Amended and Restated Subordinated Note.

The Amended and Restated Subordinated Seller Note contains certain cross-default provisions with respect to defaults and acceleration of indebtedness under our Amended Credit Facility. Therefore, similar to the current classification of the Amended Credit Facility, we have also classified this long-term indebtedness as current.

Private Placement of 18.5 Million Shares of Common Stock. On June 4, 2009, we completed the offering and sale of 18,500,000 shares of our common stock in privately-negotiated transactions with several institutional investors. The purchase price per share of common stock sold was \$2.20, representing total gross proceeds of approximately \$40.7 million. The net proceeds from the offering of \$38.2 million were applied, along with \$2.6 million of our cash on hand, to repay in full the outstanding indebtedness under the Bridge Loan Agreement. In accordance with the terms of the stock purchase agreements, we filed with the SEC on June 11, 2009, a registration statement with respect to potential resales of the shares purchased by the investors, which was declared effective on June 19, 2009. The offering and sale by us of the shares of common stock in the private placement were not registered under the Securities Act of 1933, as amended, in reliance on an exemption from the registration requirements of that Act.

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. On November 28, 2008, Fletcher purported to deliver a second notice to us to increase the Maximum Number to 9,669,434 shares, effective February 1, 2009. On September 15, 2009, Fletcher delivered a notice to us purporting to increase the Maximum Number from 9,669,434 shares to 11,669,434 shares, to become effective on November 19, 2009. We believe that our agreement with Fletcher gives Fletcher the right to issue only one notice to increase the Maximum Number. On November 6, 2009, we filed an action in the Court of Chancery of the State of Delaware seeking a declaration that, under the relevant agreement, Fletcher is permitted to deliver only one notice to increase the Maximum Number and that its purported second notice is legally invalid.

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, 2009, our total outstanding indebtedness (including capital lease obligations) was approximately \$277.4 million, net of a \$8.7 million non-cash debt discount, consisting of approximately \$101.6 million in borrowings under the term loans and \$118.0 million, excluding the non-cash debt discount, in revolving credit indebtedness under the Amended Credit Facility, \$19.1 million of borrowings under our new secured equipment financing and \$35.0 million of outstanding subordinated indebtedness under the Amended and Restated Subordinated Note. The repayment in full in June 2009 of the \$40.0 million bridge loan agreement indebtedness was significant because it represented at that time short-term indebtedness that was scheduled to mature in January 2010. Inclusive of the additional fees (and an upfront fee previously paid of 5.0%), the effective interest rate under the Bridge Loan Agreement was 25.3% at the time of repayment. Currently, under their terms, none of our principal debt facilities mature prior to 2013.

We had disclosed in our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009 that, as a result of our entering into the Fifth Amendment, repaying the indebtedness outstanding under the Bridge Loan Agreement and entering into the secured equipment financing transaction in June 2009, we expected that we would remain in compliance with the financial covenants under the Amended Credit Facility and that our cash on hand and cash generated from our operations would be sufficient to fund our operations for the remainder of 2009. However, lower-than-expected sales revenues realized during the third quarter of 2009 resulted in a high likelihood that, as of September 30, 2009, we would not be in compliance with certain

of such financial covenants. As a result, we entered into the Sixth Amendment of our Amended Credit Facility, which, among other things, included waivers of the financial covenants contained in the Amended Credit Facility for the fiscal quarters ending September 30, 2009, December 31, 2009, March 31, 2010 and June 30, 2010. These waivers should enable us to conduct our operations without defaulting under the Amended Credit Facility until the transactions with BGP are completed, which we currently believe will occur in March 2010. Without these waivers, we would not have been in compliance with certain of our financial covenants at September 30, 2009 or December 31, 2009.

As a result of obtaining the \$40.0 million of additional revolving credit indebtedness under the Convertible Notes in October 2009 and entering into the Sixth Amendment, we believe that our liquidity will be sufficient to fund our operations until such time as the transactions with BGP are completed or alternate financing could be obtained.

If the proposed transactions under the Term Sheet with BGP are not completed by March 31, 2010, then the current waivers, upon notice from the lenders after a designated period of time, would cease to be effective and we at that time would likely not be in compliance with certain of the financial covenants contained in the Amended Credit Facility, which could then result in an event of default. As the current waivers cover a period of less than twelve months from December 31, 2009, we have classified our long-term indebtedness under our revolving line of credit and term loan facility under the Amended Credit Facility as current at December 31, 2009. As a result of the cross-default provisions in our secured equipment financing and our amended and restated subordinated seller note, we have also classified these long-term obligations as current at December 31, 2009.

Even though we believe the joint venture with BGP will be completed as planned, there are certain events outside of our control (such as us experiencing a material adverse event or condition that results in a material adverse effect on our business, our prospects or results of operations) that could cause the closing of the joint venture to be delayed, terminated or abandoned. In such event, we would need to seek to amend, or seek additional covenant waivers under, the Amended Credit Facility. Even though the lenders under the Amended Credit Facility have demonstrated their willingness to work with us in amending or providing sufficient waivers to its facility, there can be no assurance that we would be able to obtain any such waivers or amendments in the future. If we were to be unable to obtain such waivers or amendments from the lenders, we would likely seek to replace or pay off the Amended Credit Facility with new secured debt, unsecured debt or equity financing.

As part of the formation of the joint venture, we have been in discussions with various financial institutions (both domestic and international) on the refinancing of our debt. As a result of these discussions and with the recent improvements within the financial markets, we believe that in the unlikely event the joint venture is not completed as planned, we would be able to obtain additional debt or equity financings prior to defaulting on our current debt obligations. However, there also can be no assurance that such debt or equity financing would be available on terms acceptable to us or at all.

For the year ended December 31, 2009, total capital expenditures, including investments in our multi-client data library, were \$92.6 million, and we are projecting capital expenditures for the year 2010 to be between \$100 million to \$110 million. If there continues to be weak demand for our products and services, we would expect continued reduced levels of capital expenditures, which may, in turn, lessen our requirements for working capital. Of the total projected 2010 capital expenditures, we are estimating that approximately \$90 million to \$100 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 \$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 the year ended December 31, 2009, compared to \$111.7 million for the year ended December 31, 2008. The decrease in net cash provided in our operating activities was primarily due to decreased accrued liabilities and accounts payable. This decrease was partially offset by a decrease in our inventories, a decrease in accounts receivable resulting from lower sales levels and increased collections on our receivables and a decrease in our unbilled receivables due to lower sales levels and the timing of the invoicing of those sales. We are continuing to adjust our manufacturing and purchasing plans in order to focus on continuing to make sales from the remaining inventory and thereby further reduce current levels of inventory.

Cash and cash equivalents were \$35.2 million at December 31, 2008, a decrease of \$1.2 million compared to December 31, 2007. Net cash provided by operating activities was \$111.7 million for the year ended December 31, 2008, compared to \$93.8 million for the year ended December 31, 2007. The increase in net cash provided in our operating activities was primarily due to increased accrued liabilities and accounts payable as well as decreased accounts receivable resulting from increased collections in 2008. This increase was partially offset by increased investment in our inventories. We have adjusted our manufacturing and purchasing plans in order that we can focus on making sales from this inventory in order to reduce our current levels of inventory.

Cash Flow from Investing Activities

Net cash flow used in investing activities was \$91.6 million for the year ended December 31, 2009, compared to \$354.6 million for the year ended December 31, 2008. The principal uses of our cash for investing activities during the year ended December 31, 2009 were a \$89.6 million investment in our multi-client data library and \$3.0 million of equipment and rental equipment purchases.

Net cash flow used in investing activities was \$354.6 million for the year ended December 31, 2008, compared to \$76.0 million for the year ended December 31, 2007. The principal uses of our cash for investing activities during the year ended December 31, 2008 were \$242.8 million expended to acquire ARAM in September 2008, \$17.5 million of equipment and rental equipment purchases and a \$110.4 million investment in our multi-client data library. This was partially offset by \$10.7 million of cash we acquired in the ARAM acquisition and proceeds from the sale of assets and rental assets of \$5.4 million.

Cash Flow from Financing Activities

Net cash flow provided by financing activities was \$19.7 million for the year ended December 31, 2009, compared to \$244.3 million for the year ended December 31, 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 Amended Credit 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 the twelve months ended December 31, 2009.

Net cash flow provided by financing activities was \$244.3 million for the year ended December 31, 2008, compared to \$0.8 million for the year ended December 31, 2007. The net cash flow provided by financing activities during 2008 was primarily related to \$160.3 million of net proceeds from acquisition debt we borrowed to purchase ARAM, \$66.0 million of net borrowings on our revolving credit facility, \$35.0 million in proceeds from the issuance and sale of our Series D-3 Preferred Stock in February 2008 and \$6.3 million in proceeds related to the exercise of stock options and stock purchases by our employees under our employee plans. This cash inflow was partially offset by scheduled principal payments of \$18.1 million on our notes payable and capital lease obligations and \$3.9 million in cash dividends paid on our outstanding Series D-1, Series D-2 and Series D-3 Preferred Stock.

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.

Future Contractual Obligations

The following table was compiled based upon the current presentation of our debt in our balance sheet and not on the original terms and maturity dates of the respective debt instruments. The table below also does not include the non-cash debt discount of \$8.7 million but instead lists the contractual principal amounts since those amounts will be the principal paid at the termination of the contractual obligations. The following table sets forth estimates of future payments of our consolidated contractual obligations, as of December 31, 2009 (in thousands):

<u>Contractual Obligations</u>	<u>Total</u>	<u>Less than 1 Year</u>	<u>1-3 Years</u>	<u>3-5 Years</u>	<u>More than 5 Years</u>
Notes payable and long-term debt	\$279,562	\$275,905	\$ 1,324	\$ 1,798	\$ 535
Interest on notes payable and long-term debt obligations	16,628	15,544	713	353	18
Equipment capital lease obligations . . .	6,475	3,884	2,591	—	—
Operating leases	46,330	12,603	18,469	8,018	7,240
Product warranty	5,088	5,088	—	—	—
Purchase obligations	<u>21,430</u>	<u>21,430</u>	<u>—</u>	<u>—</u>	<u>—</u>
Total	<u>\$375,513</u>	<u>\$334,454</u>	<u>\$23,097</u>	<u>\$10,169</u>	<u>\$7,793</u>

The long-term debt and lease obligations at December 31, 2009 included \$118.0 million, excluding the \$8.7 million non-cash debt discount, of revolving credit indebtedness and \$101.6 million under our five-year term loan, in each case incurred under our Amended Credit Facility and maturing in 2013. The remaining amount of these obligations consists of \$35.0 million under our Amended and Restated Subordinated Note, \$19.1 million under the ICON Loan Agreements, \$4.2 million indebtedness related to our Stafford, Texas facility sale-leaseback arrangement and \$1.7 million of short-term notes payable. The \$6.5 million of capital lease obligations relates to ARAM and GXT's financing of computer and other equipment purchases. The interest on notes payable and long-term debt obligations in the table above are calculated based upon the current presentation of our debt in our balance sheet and not on the original terms and maturity dates of the respective debt instruments. Using the original terms and maturity dates, the interest expense would be \$24.8 million for 1-3 years and \$8.1 million for 3-5 years. See "*— Revolving Line of Credit and Term Loan Facilities*" above and Note 12 "*Notes Payable, Long-term Debt and Lease Obligations.*"

Because we may prepay our outstanding revolving credit indebtedness under the Amended Credit Facility at any time, the interest expense is not included in the above table. However, if the outstanding principal of \$118.0 million as of December 31, 2009 was not repaid in 2010, the interest expense would be \$8.0 million using the interest rate as of December 31, 2009. For further discussion of our notes payable, long-term debt and capital lease obligations, see Note 12 "*Notes Payable, Long-term Debt and Lease Obligations.*"

The non-cash liability associated with fair value of the Warrant of \$44.8 million at December 31, 2009 was not reflected in the above table as its settlement upon exercise is only through issuance of our common shares and does not provide for cash settlement. See further discussion of the accounting impact of the Warrant at "*— Critical Accounting Policies and Estimates — Fair Value of the Warrant.*"

The operating lease commitments at December 31, 2009 relate to our leases for certain equipment, offices, processing centers, and warehouse space under non-cancelable operating leases.

The liability for product warranties at December 31, 2009 relate to the estimated future warranty expenditures associated with our products. Our warranty periods generally range from 30 days to three years

from the date of original purchase, depending on the product. We record an accrual for product warranties and other contingencies at the time of sale, which is when the estimated future expenditures associated with those contingencies become probable and the amounts can be reasonably estimated. We generally receive warranty support from our suppliers regarding equipment they manufactured. Our purchase obligations primarily relate to our committed inventory purchase orders for which deliveries are scheduled to be made in 2010.

Dividends on our Series D Preferred Stock are payable quarterly and must be paid in cash. In 2009, we paid \$3.5 million in dividends on our Series D Preferred Stock. The dividend rate was 5.0% at December 31, 2009. See “— *Liquidity and Capital Resources*” above.

Upon the completion of the joint venture transactions, the ICON Loan Agreements and all outstanding amounts owed under the agreements will be assumed by the joint venture. In addition, we intend to repay the \$35.0 million under our Amended and Restated Subordinated Note and the \$118.0 million of revolving credit indebtedness from the proceeds of the joint venture transaction. Additionally, as of December 31, 2009, approximately \$16.9 million of operating leases, product warranty and purchase obligations related to businesses that will be assumed by the joint venture upon its closing.

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 and Product Warranty.* We derive revenue from the sale and rental of (i) acquisition systems and other seismic equipment within our Land Imaging Systems and Marine Imaging Systems segments; (ii) imaging services, multi-client surveys and licenses of “off-the-shelf” data libraries within our ION Solutions segment; and (iii) navigation, survey and quality control software systems within our Data Management Solutions segment.

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 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.

Our Land Imaging Systems segment receives rental income from the rental of seismic equipment. The rental is in the form of operating leases as the lease terms range from a couple of days to several months. Rental revenue is recognized on a straight line basis over the term of the operating lease.

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.

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.

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*,” and allocate revenue to each element based upon its vendor-specific objective evidence of fair value, so long as each such element meets the criteria for treatment as a separate unit of accounting. We limit the amount of revenue recognized for delivered elements to the amount that is not contingent on the future delivery of products or services. We generally do not grant return or refund privileges to our customers. When undelivered elements, such as training courses and engineering services, are inconsequential or perfunctory and not essential to the functionality of the delivered elements, we recognize revenue on the total contract and make a provision for the costs of the incomplete elements.

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*,” because in those systems the software is more than incidental to the arrangement as a whole. Following the requirements of ASC 985-605 “*Applicability of AICPA Statement of Position 97-2 to Non-Software Deliverables in an Arrangement Containing More-Than-Incidental Software*,” we consider the hardware within these systems to be a software-related item because the software is essential to the hardware’s functionality. As a result, we recognize revenue from sales of navigation, survey and quality control 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 and software-related hardware 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. 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 of fair value of the element or, if vendor-specific objective evidence 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 these time-based licenses, we recognize revenue ratably over the contract term, which is generally two to five years.

We generally warrant that our manufactured equipment will be free from defects in workmanship, material and parts. Warranty periods generally range from 30 days to three years from the date of original purchase, depending on the product. We provide for estimated warranty as a charge to costs of sales at the time of sale.

- *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 the years ended December 31, 2009,

2008 and 2007, we capitalized, as part of our multi-client data library \$3.8 million, \$5.4 million, and \$4.3 million, respectively, of direct internal processing costs.

Our method of amortizing the costs of a multi-client data library available for commercial sale is the greater of (i) the percentage of actual revenue to the total estimated revenue multiplied by the total cost of the project (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. The total amortization period of four years represents the minimum period over which benefits from these surveys are expected to be derived. 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 2009, an increase in 10% in the sales forecasts of all surveys would have decreased our amortization expense by approximately \$3.2 million.

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," record an impairment charge with respect to such data. There were no impairment charges during 2009 and 2008.

- *Fair Value of the Warrant.* We issued the Warrant to BGP as part of our proposed joint venture with them, which included BGP arranging for the Bank of China to join as a new lender to our Amended Credit Facility. The Warrant is required to be accounted for at its fair value with changes in its fair value being recognized below income from operations in the period of change. The fair value of the Warrant was determined using a Black-Scholes model that the value of the features based upon certain key inputs. The key input for the Black-Scholes model is the current market price of our common stock, the yield on our common stock dividend payments (0%), risk-free interest rates, the expected term (March 31, 2010) and our stock's historical and implied volatility. The most significant inputs are the current market price of our common stock. Holding all other inputs constant, a 10% increase or decrease in our common stock price would result in an increase or decrease in the fair value of the warrant liability of \$8.4 million and (\$8.3 million), respectively.
- *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, 2009 was \$30.6 million compared to \$24.1 million at December 31, 2008. The majority of the increase in our reserves for excess and obsolete inventory in 2009 related to our Marine Imaging Systems mature acquisition systems and source products. The increase in our reserves for excess and obsolete inventories in 2008 primarily related to our analog land acquisition systems. As a result of the integration of ARAM into our Land Imaging Systems segment, at the end of 2008, we

evaluated and determined that market values of certain of our mature analog products were lower than their then-current book values.

- *Goodwill and Other Intangible Assets.* For purposes of performing the impairment test for goodwill as required by ASC 350, we established the following reporting units: Land Imaging Systems (includes ARAM), Sensor Geophone, Marine Imaging Systems, Data Management Solutions, and ION 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.

ASC 350 requires us to compare the fair value of our reporting units to their carrying amount on an annual basis to determine if there is potential goodwill impairment. If the fair value of the reporting unit is less than its carrying value, an impairment loss is recorded to the extent that the fair value of the goodwill within the reporting units is less than its carrying value.

We completed our annual goodwill impairment testing as of December 31, 2008 and determined that all of the goodwill within our Land Imaging Systems (including ARAM) and ION Solutions reporting units were impaired. As a result, we recorded a goodwill impairment charge of \$242.2 million. The decrease in these reporting units' fair value was primarily driven by the overall economic and financial crisis and the decrease in the current demand for our land analog acquisition products, especially within North America and Russia.

We completed our annual goodwill impairment testing as of December 31, 2009 and determined that no goodwill was impaired. Our remaining goodwill as of December 31, 2009 was comprised of \$27.0 million in our Marine Imaging Systems and \$25.1 million in our Data Management Solutions reporting units. Our 2009 annual impairment test indicated that the fair value of these two reporting units significantly exceeded their carrying values by over 50% for each business unit. The analyses are based upon the operating forecasts approved annually by the Board of Directors, 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, trade names and non-compete agreements 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 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 the years ended December 31, 2009 and 2008, we determined that certain of the intangible assets (customer relationships, trade names and non-compete agreements) associated with our ARAM acquisition 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.

- *Accounts and Notes Receivable Collectibility.* We consider current information and circumstances regarding our customers' ability to repay their obligations, such as the length of time the receivable balance is outstanding, the customers' credit worthiness and historical experience, and consider an account or note impaired when it is probable that we will be unable to collect all amounts due. When we consider a note receivable as impaired, we measure the amount of the impairment based on the

present value of expected future cash flows or the fair value of collateral. We include impairment losses (recoveries) in our allowance for doubtful accounts and notes through an increase (decrease) in bad debt expense.

We record interest income on investments in notes receivable on the accrual basis of accounting. We do not accrue interest on impaired loans where collection of interest according to the contractual terms is considered doubtful. Among the factors we consider in making an evaluation of the collectibility of interest are: (i) the status of the loan; (ii) the fair value of the underlying collateral; (iii) the financial condition of the borrower; and (iv) anticipated future events.

- *Stock-Based Compensation.* We account for stock based compensation under the recognition provisions of ASC 718 “*Share-Based Payment.*” 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 the twelve months ended December 31, 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 the current year and were therefore recorded in 2009.

In 2009, 2008 and 2007, we recognized \$12.7 million, \$8.3 million and \$6.9 million, respectively, of stock-based compensation expense related to our employees’ outstanding stock-based awards. The total expense in 2009 was comprised of \$1.2 million reflected in cost of sales, \$0.8 million in research and development expense, \$1.5 million in marketing and sales expense, and \$9.2 million (including the \$3.3 million stock-based compensation charge described above) in general and administrative expense. In addition to the share-based compensation expense related to the Company’s plans, we recorded \$0.8 million of share-based compensation expense in 2009 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

In October 2009, the Financial Accounts Standards Board (FASB) issued Accounting Standard Update (ASU) No. 2009-13 on ASC 605, “*Revenue Recognition— Multiple Deliverable Revenue Arrangements — a consensus of the FASB Emerging Issues Task Force*” (ASU 2009-13). ASU 2009-13 amended guidance related to multiple-element arrangements which requires an entity to allocate arrangement consideration at the inception of an arrangement to all of its deliverables based on their relative selling prices. The consensus eliminates the use of the residual method of allocation and requires the relative-selling-price method in all circumstances. All entities must adopt the guidance no later than the beginning of their first fiscal year beginning on or after June 15, 2010. Entities may elect to adopt the guidance through either prospective application for revenue arrangements entered into, or materially modified, after the effective date or through retrospective application to all revenue arrangements for all periods presented. We are currently evaluating the impact, if any, of ASU 2009-13 on our financial position and results of operations.

In October 2009, the FASB issued ASU No. 2009-14 on ASC 985, “*Certain Revenue Arrangements That Include Software Elements*” (ASU 2009-14). ASU 2009-14 amended guidance that is expected to significantly affect how entities account for revenue arrangements that contain both hardware and software elements. As a result, many tangible products that rely on software will be accounted for under the revised multiple-element arrangements revenue recognition guidance, rather than the software revenue recognition guidance. The revised

guidance must be adopted by all entities no later than fiscal years beginning on or after June 15, 2010. An entity must select the same transition method and same period for the adoption of both this guidance and the revisions to the multiple-element arrangements guidance noted above. We are currently evaluating the impact, if any, of ASU 2009-14 on our financial position and results of operations.

In August 2009, the FASB issued ASU 2009-05, "*Fair Value Measurements and Disclosures, Measuring Liabilities at Fair Value (Topic 820)*" (ASU 2009-05). ASU 2009-05 provides additional clarification on valid valuation techniques using acquired prices in active markets for identical liabilities. The provisions for ASU 2009-05 were effective for interim period ending after August 2009. The adoption of ASU 2009-05 did not have a material impact to the company's financial position, results of operations or cash flows.

In June 2009, the FASB issued ASC 105-10, "*The FASB Accounting Standards Codification™ and the Hierarchy of Generally Accepted Accounting Principles — a replacement of FASB Statement No. 162*" ("ASC 105-10"). ASC 105-10 is the single, official source of authoritative, nongovernmental GAAP, other than guidance issued by the SEC and is effective for interim or annual financial periods ending after September 15, 2009. We adopted this statement on September 15, 2009 and have updated all existing GAAP references to the new codification.

In April 2009, the FASB issued ASC 825-10-65-1, "*Interim Disclosures about Fair Value of Financial Instruments*" (ASC 825-10-65-1). ASC 825-10-65-1 provides additional clarification on interim disclosures and require public companies to disclose the fair value of financial instruments whenever companies publish interim financial summary information. The provisions for ASC 825-10-65-1 were effective for interim periods ending after June 15, 2009 with earlier adoption permitted. We adopted ASC 825-10-65-1 on the effective date. The adoption of ASC 825-10-65-1 did not have a material impact to our financial position, results of operation or cash flows.

In April 2009, the FASB issued ASC 320-10, "*The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments*" (ASC 320-10). ASC 320-10 provides additional guidance designed to create greater clarity and consistency in accounting for and presenting impairment losses on securities. This issuance changes (i) the method for determining whether an other-than-temporary impairment exists for debt securities and for cost method investments; and (ii) the amount of an impairment charge to be recorded in earnings. ASC 320-10 was effective for interim and annual periods ending after June 15, 2009. The Company has determined that it is not practicable to estimate the fair value of its cost method investments, as quoted market prices are not available. During 2009, the Company's investment in Colibrys Ltd. was determined to be impaired and was subsequently written off. The aggregate carrying amount of cost method investments was \$0.5 million at December 31, 2009, and was included within Other Assets. The adoption of ASC 320-10 did not have a material impact to our financial position, results of operation or cash flows.

In September 2008, the FASB issued ASC 260-10, "*Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities*" (ASC 260-10), which was effective for fiscal years beginning after December 15, 2008. ASC 260-10 would require unvested share-based payment awards containing non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) to be included in the computation of basic earnings per share according to the two-class method. The adoption of ASC 260-10 did not have a material impact on our earnings per share computation.

Credit and Sales Risks

No single customer represented 10% or more of our consolidated net revenues for the years ended December 31, 2009, 2008 and 2007; however, our top five customers in total represented approximately 29%, 30% and 31%, respectively of our consolidated net revenues. The loss of any significant customers or deterioration in our relationship with either customer could have a material adverse effect on our results of operations and financial condition.

For the twelve months ended December 31, 2009, we recognized \$92.8 million of sales to customers in Europe, \$67.2 million of sales to customers in Asia Pacific, \$25.4 million of sales to customers in Africa, \$42.4 million of sales to customers in the Middle East, \$34.3 million of sales to customers in Latin American

countries, and \$4.7 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 the years ended December 31, 2009 and 2008, international sales comprised 64% and 60%, respectively, of total net revenues. In recent years, the CIS and certain Latin American countries have experienced economic problems and uncertainties. However, given the recent market downturn, more countries and areas of the world have also begun to experience 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 collectibility 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

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 8.1% of our outstanding common stock as of February 22, 2010.

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 accounting, 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, 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 2009, we paid Laitram a total of approximately \$4.0 million, which consisted of approximately \$3.2 million for manufacturing services, \$0.7 million for rent and other pass-through third party facilities charges, and \$0.1 million for other services. For the 2008 and 2007 fiscal years, we paid Laitram a total of approximately \$4.3 million and \$4.9 million 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 part of our ongoing business, we do not participate in transactions that generate material relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities (SPEs) that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As a result, we have no material off-balance sheet arrangements.

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, foreign currency exchange rates and changes in our common stock price.

Interest Rate Risk. On December 31, 2009, we had outstanding total indebtedness of approximately \$277.4 million, net of a \$8.7 million non-cash debt discount associated with our \$40.0 million in Convertible Notes, and including capital lease obligations. Of that indebtedness, approximately \$219.6 million accrues interest under rates that fluctuate based upon market rates plus an applicable margin. Both the \$101.6 million in term loan indebtedness and the \$118.0 million, excluding the non-cash debt discount, in total revolving credit indebtedness outstanding under the Amended Credit Facility accrued interest using LIBOR-based interest rate of 6.7% per annum. The average effective interest rate for the quarter ended December 31, 2009 under the LIBOR-based rates for both the term loan indebtedness and the revolving credit loans were 6.2%. 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 \$2.2 million.

The fair market value of our outstanding notes payable and long-term debt was determined to be \$286.0 million at December 31, 2009. Approximately \$118.0 million of our revolving credit borrowings and \$101.6 million of our Term Loan were re-negotiated in October 2009. Additionally, the debt under the ICON Loan Agreements totaling \$19.1 million at December 31, 2009 was negotiated in June 2009. As a result, a majority of our principal debt facilities were re-negotiated within the fourth quarter of 2009 using current market rates. Also, a majority of our indebtedness is variable-rate, which approximates fair value.

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 Canadian dollars (CAD). 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, Canada, the Netherlands, China, Venezuela, India, 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, 2009 reflected approximately \$38.8 million of net working capital related to our foreign subsidiaries. A majority of our foreign net working capital is within Canada and the United Kingdom. The subsidiaries in those countries receive their income and pay their expenses primarily in Canadian dollars (CDN) and pounds sterling (GBP), respectively. To the extent that transactions of these subsidiaries are settled in CDN or GBP, 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.

Fair Value of the Warrant. The Warrant issued to BGP related to our proposed joint venture, which included BGP arranging for the Bank of China to join as a new lender to our Amended Credit Facility, is required to be accounted for at its fair value. The value of the Warrant was determined using a Black-Scholes model. The key input for the Black-Scholes model is the current market price of our common stock, the yield on our common stock dividend payments (0%), risk-free interest rates, the expected term (March 31, 2010) and our stock's historical and implied volatility. Holding all other inputs constant, a 10% increase or decrease in our common stock price would result in an increase or decrease in the fair value of the warrant liability of \$8.4 million and (\$8.3 million), respectively.

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. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

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, 2009. 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, 2009.

(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;
- (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, 2009 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, 2009.

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.

Remediation of Material Weakness in Internal Control over Financial Reporting. Under Rule 12b-2 under the Exchange Act, a material weakness is defined as a deficiency, or a combination of deficiencies, in

internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. In October 2009, a material weakness was identified in the design and operation of controls surrounding revenue recognition, which resulted in a restatement to our condensed consolidated financial statements as of and for the three and six months ended June 30, 2009. This revenue recognition error resulted from the fact that the sales records in the possession of our management at June 30, 2009 did not contain all relevant documentation relating to the sale of our FireFly land seismic data acquisition system and related hardware and components in China. The discovery of the existence of the additional documentation relating to the sale in question occurred during the course of due diligence procedures that had been performed in connection with our proposed joint venture and related transactions with BGP. In connection with this due diligence process, our employees discovered certain documentation irregularities regarding the sale of the FireFly system, including that a portion of the documentation reflecting the terms for the sale had not been made available to our management for assessment with respect to the recording and reporting of the sale.

As a result, we implemented the following procedures to remediate this material weakness:

- We implemented a quarterly certification requiring our global sales force to confirm that all documentation related to sales transactions have been provided to Company management.
- Global sales personnel (including China) no longer have the authority to enter into sales contracts without the review and approval of designated corporate management; and
- We provided further training and education on the Company's revenue recognition policies and procedures and will continue to provide this training on an annual basis to our global sales force.

Because of significant efforts expended to remediate the material weaknesses described above, management believes that, as of December 31, 2009, the material weakness that existed as of June 30, 2009 had been fully remediated.

(c) *Changes in Internal Control.* Other than as described above, there was not any change in our internal control over financial reporting that occurred during the fourth quarter of fiscal 2009 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

We believe that the actions taken to remediate these weaknesses and the resulting improvement in controls have strengthened our disclosure controls and procedures, as well as our internal control over financial reporting.

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' internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). ION Geophysical Corporation and subsidiaries' 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 ION Geophysical Corporation and subsidiaries' 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, 2009, 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, 2009 and 2008 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, 2009 of ION Geophysical Corporation and subsidiaries and our report dated March 1, 2010 expressed an unqualified opinion thereon.

/s/ Ernst and Young LLP

Houston, Texas
March 1, 2010

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 26, 2010 (the “2010 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 2010 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 2010 Proxy Statement, under “*Item 1 — Section 16(a) Beneficial Ownership Reporting Compliance*,” 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, Related Transactions and Director Independence

Reference is made to the information appearing in the 2010 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 2010 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

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 Designation of Series D-3 Cumulative Convertible Preferred Stock dated February 20, 2008, filed on February 22, 2008 as Exhibit 3.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
- 4.6 — 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.
- 4.7 — 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.
- 4.8 — 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.
- 4.9 — 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.
- 4.10 — 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.
- 4.11 — Warrant to Purchase Shares of the Common Stock of ION Geophysical Corporation dated October 27, 2009, issued by ION Geophysical Corporation to BGP Inc., China National Petroleum Corporation, filed on October 29, 2009 as Exhibit 4.1 to the Company's Current Report on Form 8-K/A and incorporated herein by reference.
- 4.12 — Convertible Promissory Note, dated October 23, 2009, issued by ION Geophysical Corporation to the Bank of China, New York Branch, filed on October 29, 2009 as Exhibit 4.2 to the Company's Current Report on Form 8-K/A and incorporated herein by reference.
- 4.13 — Convertible Promissory Note, dated October 23, 2009, issued by ION International S.à r.l. to the Bank of China, New York Branch, filed on October 29, 2009 as Exhibit 4.3 to the Company's Current Report on Form 8-K/A 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.
- **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 — Fourth Amended and Restated — 2004 Long-Term Incentive Plan, filed as Appendix A to the definitive proxy statement for the 2008 Annual Meeting of Stockholders of ION Geophysical Corporation, filed on April 21, 2008, 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.
- 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.
- **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 — Consulting Services Agreement dated as of October 19, 2006, by and between GX Technology Corporation and Michael K. Lambert, filed on October 24, 2006 as Exhibit 10.2 to the Company's Current Report on Form 8-K, and incorporated herein by reference.
- **10.39 — 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.
- **10.40 — 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.
- **10.41 — 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.
- 10.42 — 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.
- 10.43 — 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.
- 10.44 — Amended and Restated Share Purchase Agreement, dated as of September 17, 2008, by and among ION Geophysical Corporation, Aram Systems Ltd., Canadian Seismic Rentals Inc. and the Sellers party thereto, filed on September 23, 2008 as Exhibit 2.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
- 10.45 — Assignment Agreement dated as of December 30, 2008 by and among 3226509 Nova Scotia Company, ARAM Systems Ltd., Canadian Seismic Rentals Inc., Maison Mazel Ltd. and ION Geophysical Corporation, filed on January 5, 2009 as Exhibit 10.1 to the Company's Current Report on Form 8-K and incorporated herein by reference.
- 10.46 — Release Agreement dated as of December 30, 2008 by and among ION Geophysical Corporation, 3226509 Nova Scotia Company, ARAM Systems Ltd., Canadian Seismic Rentals Inc., Maison Mazel Ltd. and the Sellers party thereto, filed on January 5, 2009 as Exhibit 10.2 to the Company's Current Report on Form 8-K and incorporated herein by reference.

- 10.47 — Amended and Restated Subordinated Promissory Note dated December 30, 2008, made by 3226509 Nova Scotia Company in favor of Maison Mazel Ltd., filed on January 5, 2009 as Exhibit 10.6 to the Company's Current Report on Form 8-K and incorporated herein by reference.
- *10.48 — ION Stock Appreciation Rights Plan dated November 17, 2008.
- 10.49 — Form of Purchase Agreement dated as of June 1, 2009, for the offering and sale of 18,500,000 shares of common stock of ION Geophysical Corporation in privately-negotiated transactions to "accredited investors" (as defined in Rule 501 under the Securities Act of 1933, as amended), by and between ION Geophysical Corporation and the Purchasers named therein, filed on August 6, 2009 as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and incorporated herein by reference.
- 10.50 — 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.
- 10.51 — 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.
- *10.52 — Term Sheet dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation.
- *10.53 — Warrant Issuance Agreement dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation.
- *10.54 — Registration Rights Agreement dated as of October 23, 2009 by and between ION Geophysical Corporation and BGP Inc., China National Petroleum Corporation.
- *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.*

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 March 1, 2010.

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, 2009, 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.

<u>Name</u>	<u>Capacities</u>	<u>Date</u>
<u>/s/ ROBERT P. PEEBLER</u> Robert P. Peebler	Chief Executive Officer and Director (Principal Executive Officer)	March 1, 2010
<u>/s/ R. BRIAN HANSON</u> R. Brian Hanson	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	March 1, 2010
<u>/s/ MICHAEL L. MORRISON</u> Michael L. Morrison	Vice President and Corporate Controller (Principal Accounting Officer)	March 1, 2010
<u>/s/ JAMES M. LAPEYRE, JR.</u> James M. Lapeyre, Jr.	Chairman of the Board of Directors and Director	March 1, 2010
<u>/s/ BRUCE S. APPELBAUM</u> Bruce S. Appelbaum	Director	March 1, 2010

<u>Name</u>	<u>Capacities</u>	<u>Date</u>
<u>/s/ THEODORE H. ELLIOTT, JR.</u> Theodore H. Elliott, Jr.	Director	March 1, 2010
<u>/s/ G. THOMAS MARSH</u> G. Thomas Marsh	Director	March 1, 2010
<u>/s/ FRANKLIN MYERS</u> Franklin Myers	Director	March 1, 2010
<u>/s/ S. JAMES NELSON, JR.</u> S. James Nelson, Jr.	Director	March 1, 2010
<u>/s/ JOHN N. SEITZ</u> John N. Seitz	Director	March 1, 2010
<u>/s/ NICHOLAS G. VLAHAKIS</u> Nicholas G. Vlahakis	Director	March 1, 2010

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ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES
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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.

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, 2009 and 2008, 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, 2009. 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, 2009 and 2008, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2009, 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, 2009, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 1, 2010, expressed an unqualified opinion thereon.

/s/ Ernst and Young LLP

Houston, Texas
March 1, 2010

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2009	2008
	(In thousands, except share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 16,217	\$ 35,172
Restricted cash	1,469	6,610
Accounts receivable, net	111,046	150,565
Current portion notes receivable, net	13,367	11,665
Unbilled receivables	21,655	36,472
Inventories	202,601	262,519
Deferred income tax asset	6,001	4,382
Prepaid expenses and other current assets	23,145	16,004
Total current assets	395,501	523,389
Notes receivable	—	4,438
Deferred income tax asset	26,422	11,757
Property, plant, equipment and seismic rental equipment, net	78,555	59,129
Multi-client data library, net	130,705	89,519
Goodwill	52,052	49,772
Intangible assets, net	61,766	107,443
Other assets	3,185	15,984
Total assets	\$ 748,186	\$ 861,431
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Notes payable and current maturities of long-term debt	\$ 271,132	\$ 38,399
Accounts payable	40,189	94,586
Accrued expenses	65,893	77,438
Accrued multi-client data library royalties	18,714	28,044
Fair value of the warrant	44,789	—
Deferred revenue	13,802	17,767
Total current liabilities	454,519	256,234
Long-term debt, net of current maturities	6,249	253,510
Non-current deferred income tax liability	1,262	22,713
Other long-term liabilities	3,688	3,904
Total liabilities	465,718	536,361
Commitments and contingencies		
Stockholders' equity:		
Cumulative convertible preferred stock	68,786	68,786
Common stock, \$.01 par value; authorized 200,000,000 shares; outstanding 118,688,702 and 99,621,926 shares at December 31, 2009 and 2008, respectively, net of treasury stock	1,187	996
Additional paid-in capital	666,928	619,198
Accumulated deficit	(411,548)	(301,489)
Accumulated other comprehensive income (loss)	(36,320)	(55,859)
Treasury stock, at cost, 849,539 and 848,422 shares at December 31, 2009 and 2008, respectively	(6,565)	(6,562)
Total stockholders' equity	282,468	325,070
Total liabilities and stockholders' equity	\$ 748,186	\$ 861,431

See accompanying Notes to Consolidated Financial Statements.

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2009	2008	2007
	(In thousands, except per share data)		
Product revenues	\$ 237,664	\$ 417,511	\$537,691
Service revenues	<u>182,117</u>	<u>262,012</u>	<u>175,420</u>
Total net revenues	<u>419,781</u>	<u>679,523</u>	<u>713,111</u>
Cost of products	165,923	289,795	386,849
Cost of services	<u>121,720</u>	<u>181,980</u>	<u>119,679</u>
Gross profit	<u>132,138</u>	<u>207,748</u>	<u>206,583</u>
Operating expenses:			
Research, development and engineering	44,855	49,541	49,965
Marketing and sales	34,945	47,854	43,877
General and administrative	72,510	70,893	48,847
Impairment of goodwill and intangible assets	<u>38,044</u>	<u>252,283</u>	<u>—</u>
Total operating expenses	<u>190,354</u>	<u>420,571</u>	<u>142,689</u>
Income (loss) from operations	(58,216)	(212,823)	63,894
Interest expense, including amortization of a non-cash debt discount . . .	(35,671)	(12,723)	(6,283)
Interest income	1,721	1,439	1,848
Fair value adjustment of the warrant	(29,401)	—	—
Impairment of cost method investment	(4,454)	—	—
Other income (expense)	<u>(4,023)</u>	<u>4,200</u>	<u>(3,992)</u>
Income (loss) before income taxes	(130,044)	(219,907)	55,467
Income tax (benefit) expense	<u>(19,985)</u>	<u>1,131</u>	<u>12,823</u>
Net income (loss)	(110,059)	(221,038)	42,644
Preferred stock dividends and accretion	3,500	3,889	2,388
Preferred stock beneficial conversion charge	<u>—</u>	<u>68,786</u>	<u>—</u>
Net income (loss) applicable to common shares	<u><u>\$(113,559)</u></u>	<u><u>\$(293,713)</u></u>	<u><u>\$ 40,256</u></u>
Earnings per share:			
Basic net income (loss) per share	\$ (1.03)	\$ (3.06)	\$ 0.49
Diluted net income (loss) per share	\$ (1.03)	\$ (3.06)	\$ 0.45
Weighted average number of common shares outstanding:			
Basic	110,516	95,887	81,941
Diluted	110,516	95,887	97,321

See accompanying Notes to Consolidated Financial Statements.

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31		
	2009	2008	2007
(In thousands)			
Cash flows from operating activities:			
Net income (loss)	\$(110,059)	\$(221,038)	\$ 42,644
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization (other than multi-client library)	47,911	33,052	26,767
Amortization of multi-client data library	48,449	80,532	37,662
Stock-based compensation expense related to stock options, nonvested stock, and employee stock purchases	12,671	8,306	6,875
Bad debt expense	3,528	4,852	437
Amortization of debt discount	6,732	816	—
Fair value adjustment of the warrant	29,401	—	—
Fair value adjustment of preferred stock redemption features	—	(1,215)	—
Impairment of goodwill and intangible assets	38,044	252,283	—
Impairment of cost method investment	4,454	—	—
Deferred income tax	(38,150)	(17,549)	2,960
Excess tax benefit from stock-based compensation	—	(328)	—
Profit on sale of rental assets	(524)	(3,190)	—
Change in operating assets and liabilities:			
Accounts and notes receivable	41,936	37,673	(14,348)
Unbilled receivables	14,817	(14,084)	6,211
Inventories	18,582	(89,998)	(11,270)
Accounts payable, accrued expenses and accrued royalties	(72,140)	46,160	8,674
Deferred revenue	(4,188)	(6,088)	(16,203)
Other assets and liabilities	10,522	1,531	3,351
Net cash provided by operating activities	<u>51,986</u>	<u>111,715</u>	<u>93,760</u>
Cash flows from investing activities:			
Purchase of property, plant and equipment	(2,966)	(17,539)	(11,375)
Investment in multi-client data library	(89,635)	(110,362)	(64,279)
Business acquisition	—	(242,835)	—
Cash of acquired business	—	10,677	—
Proceeds from the sale of fixed assets and rental equipment	1,972	5,434	386
Increase in cost method investments	(59)	—	(700)
Other investing activities	(950)	—	—
Net cash used in investing activities	<u>(91,638)</u>	<u>(354,625)</u>	<u>(75,968)</u>
Cash flows from financing activities:			
Borrowings under revolving line of credit	77,000	235,000	175,000
Repayments under revolving line of credit	(25,000)	(169,000)	(175,000)
Net proceeds from issuance of debt	19,218	160,308	—
Net proceeds from issuance of stock	38,220	—	—
Payments on notes payable and long-term debt	(81,517)	(18,082)	(8,424)
Costs associated with debt amendments	(4,630)	—	—
Issuance of preferred stock	—	35,000	5,000
Payment of preferred dividends	(3,500)	(3,889)	(2,375)
Proceeds from employee stock purchases and exercise of stock options	286	6,323	8,038
Restricted stock cancelled for employee minimum income taxes	(345)	(1,660)	(1,314)
Excess tax benefit from stock-based compensation	—	328	—
Purchases of treasury stock	(3)	(39)	(117)
Net cash provided by financing activities	<u>19,729</u>	<u>244,289</u>	<u>808</u>
Effect of change in foreign currency exchange rates on cash and cash equivalents	968	(2,616)	753
Net increase (decrease) in cash and cash equivalents	(18,955)	(1,237)	19,353
Cash and cash equivalents at beginning of period	35,172	36,409	17,056
Cash and cash equivalents at end of period	<u>\$ 16,217</u>	<u>\$ 35,172</u>	<u>\$ 36,409</u>

See accompanying Notes to Consolidated Financial Statements.

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY AND
COMPREHENSIVE INCOME (LOSS)

	Cumulative Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balance at January 1, 2007	—	\$ —	80,123,486	\$ 810	\$493,605	\$(123,095)	\$ 4,859	\$(6,511)	\$ 369,668
Comprehensive income:									
Net income	—	—	—	—	—	42,644	—	—	42,644
Other comprehensive income:									
Translation adjustment	—	—	—	—	—	—	601	—	601
Total comprehensive income									43,245
Preferred stock dividends					(2,388)				(2,388)
Stock-based compensation expense	—	—	—	—	6,875	—	—	—	6,875
Purchase of treasury stock	—	—	(8,548)	—	—	—	—	(117)	(117)
Exercise of stock options	—	—	1,036,794	10	6,960	—	—	—	6,970
Vesting of restricted stock units/awards	—	—	455,307	4	(4)	—	—	—	—
Restricted stock cancelled for employee minimum income taxes	—	—	(91,732)	—	(1,314)	—	—	—	(1,314)
Issuance of stock for the ESPP	—	—	113,763	2	1,068	—	—	—	1,070
Conversion of 5.5% convertible senior notes	—	—	12,212,964	122	52,030	—	—	—	52,152
Issuance of treasury stock	—	—	5,574	—	35	—	—	44	79
Balance at December 31, 2007	—	—	93,847,608	948	556,867	(80,451)	5,460	(6,584)	476,240
Comprehensive income:									
Net loss	—	—	—	—	—	(221,038)	—	—	(221,038)
Other comprehensive loss:									
Translation adjustment	—	—	—	—	—	—	(61,319)	—	(61,319)
Total comprehensive loss									(282,357)
Preferred stock dividends					(3,889)				(3,889)
Reclassification of preferred stock to equity	70,000	68,786	—	—	—	—	—	—	68,786
Stock-based compensation expense	—	—	—	—	8,306	—	—	—	8,306
Purchase of treasury stock	—	—	(2,745)	—	—	—	—	(39)	(39)
Issuance of stock for ARAM acquisition	—	—	3,629,211	36	48,922	—	—	—	48,958
Exercise of stock options	—	—	656,166	6	4,842	—	—	—	4,848
Vesting of restricted stock units/awards	—	—	550,083	5	(5)	—	—	—	—
Restricted stock cancelled for employee minimum income taxes	—	—	(101,991)	—	(1,660)	—	—	—	(1,660)
Issuance of stock for the ESPP	—	—	109,943	1	1,474	—	—	—	1,475
Conversion of 5.5% convertible senior notes	—	—	925,926	9	3,996	—	—	—	4,005
Tax benefits from stock-based compensation	—	—	—	—	271	—	—	—	271
Issuance of treasury stock	—	—	7,725	—	65	—	—	61	126
Other equity adjustments	—	—	—	(9)	9	—	—	—	—
Balance at December 31, 2008	70,000	68,786	99,621,926	996	619,198	(301,489)	(55,859)	(6,562)	325,070
Comprehensive income:									
Net loss	—	—	—	—	—	(110,059)	—	—	(110,059)
Other comprehensive loss:									
Translation adjustment	—	—	—	—	—	—	19,539	—	19,539
Total comprehensive loss									(90,520)
Preferred stock dividends					(3,500)				(3,500)
Stock-based compensation expense	—	—	—	—	12,671	—	—	—	12,671
Purchase of treasury stock	—	—	(1,117)	—	—	—	—	(3)	(3)
Issuance of stock	—	—	18,500,000	185	38,035	—	—	—	38,220
Exercise of stock options	—	—	9,837	—	21	—	—	—	21
Vesting of restricted stock units/awards	—	—	528,284	5	(5)	—	—	—	—
Restricted stock cancelled for employee minimum income taxes	—	—	(79,878)	—	(99)	—	—	—	(99)
Issuance of stock for the ESPP	—	—	109,650	1	263	—	—	—	264
Tax benefits from stock-based compensation	—	—	—	—	344	—	—	—	344
Balance at December 31, 2009	<u>70,000</u>	<u>\$68,786</u>	<u>118,688,702</u>	<u>\$1,187</u>	<u>\$666,928</u>	<u>\$(411,548)</u>	<u>\$(36,320)</u>	<u>\$(6,565)</u>	<u>\$ 282,468</u>

See accompanying Notes to Consolidated Financial Statements.

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 (formerly Input/Output, Inc.) and its wholly-owned subsidiaries offer a full suite of related products and services for seismic data acquisition and processing, including products incorporating traditional analog technologies and products incorporating the proprietary VectorSeis, True Digital™ technology. 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 and Proposed Joint Venture with BGP. Demand for the Company’s products and services is cyclical and substantially dependent upon activity levels in the oil and gas industry, particularly the willingness and ability of the Company’s customers 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 global financial crisis, which has contributed, among other things, to significant reductions in available capital and liquidity from banks and other providers of credit, resulted in the worldwide economy entering into a prolonged, severe recessionary period, which may continue through all or part of 2010. Oil prices increased to record levels during the second quarter of 2008, but, in conjunction with the global recession, sharply declined after that, falling to approximately \$35 per barrel during the first quarter of 2009. By the end of 2009, oil prices had recovered to approximately \$83 per barrel. Natural gas prices followed a similar, recession-induced downturn. After peaking at \$13.31 mmBtu in July 2008, Henry Hub natural gas prices fell approximately 50%. Unlike the recent recovery of oil prices, natural gas prices have remained depressed due in part to the excess supply of natural gas in the market. These conditions sharply curtailed demand for exploration activities in North America and other regions.

The weakness in demand for the Company’s products, the uncertainty surrounding future economic activity levels and the tightening of credit availability resulted in decreased sales for the Company’s business units. The Company’s seismic contractor customers and the exploration and production companies (“E&P companies”) that are users of the Company’s products, services and technology have generally reduced their capital spending levels since 2008. The Company expects that the level of customers’ exploration and production expenditures will continue to be reduced to the extent that E&P companies and seismic contractors are limited in their access to the credit markets as a result of further disruptions in, or the more conservative lending practices by, the lending markets. There continues to be significant uncertainty about future exploration and production activity levels and the impact on the Company’s businesses. In particular, the North America and Russia land systems business and the Company’s vibroseis truck business experienced steep sales declines in 2009.

While the global recession and the lower oil and gas prices slowed demand for the Company’s products and services in the near term, the Company believes that the industry’s long-term prospects remain favorable because of the declining rates in oil and gas production. The Company believes that technology that adds a competitive advantage through cost reductions or improvements in productivity will continue to be valued in its marketplace, even in the current difficult market. For example, the Company believes that its new technologies, such as FireFly®, DigiFIN™ and Orca®, will continue to attract interest from its customers because those new technologies are designed to deliver improvements in image quality within more productive delivery systems.

In response to this global economic downturn and subsequently decreased demand for the Company’s products and services, the Company took measures to reduce its cost structure. The most significant cost reduction to date has related to reduced headcount. Beginning in the fourth quarter of 2008 and continuing

through 2009, the Company reduced its headcount by 384 positions, or approximately 26% of its employee headcount, in order to adjust to the lower levels of activity. Including all contractors and employees, the Company reduced its headcount by 489 positions, or 27%. In April 2009, the Company also initiated a salary reduction program that reduced employee base salaries. The salary reductions reduced affected employees' annual base salaries by 12% for the Company's chief executive officer, chief operating officer and chief financial officer, 10% for all other executives and senior management, and 5% for most other employees. Additionally, the Board of Directors elected to implement a 15% reduction in director fees. In addition to the salary reduction program, the Company elected to suspend its matching contributions to its employee 401(k) plan contributions. See further discussion of the reinstatement of employees salaries and of director fees at Note 20 "*— Restructuring Activities.*" The Company intends to continue to fund strategic programs to position it for the expected recovery in economic activity. Overall, the Company has and will continue to give priority to generating cash flow and reducing its cost structure, while maintaining its long-term commitment to continued technology development.

On June 4, 2009, the Company completed a private placement transaction in which the Company issued and sold 18,500,000 shares of its common stock in privately-negotiated transactions for aggregate gross proceeds of approximately \$40.7 million. The \$38.2 million in net proceeds from the offering, along with \$2.6 million of cash on hand, were applied to repay in full the outstanding indebtedness under a bridge loan agreement with Jefferies Finance LLC dated as of December 30, 2008. The indebtedness under this bridge loan agreement had been scheduled to mature on January 31, 2010 and had an effective interest rate at the time of repayment of 25.3%. The Company also entered into an additional amendment (the "Fifth Amendment") to its amended commercial banking credit facility (the "Amended Credit Facility") which, among other things, modified certain of the financial and other covenants contained in the Amended Credit Facility.

In addition, on June 29, 2009, the Company also entered into a \$20.0 million secured equipment financing term loan with ICON ION, LLC ("ICON"), an affiliate of ICON Capital Inc. The Company received \$12.5 million on that date and \$7.5 million in July 2009. All borrowed indebtedness under this arrangement is scheduled to mature on July 31, 2014 and constitutes permitted indebtedness under the Amended Credit Facility. The proceeds of the secured term loan are being applied for working capital and general corporate purposes. See further discussion at Note 12 "*— Notes Payable, Long-term Debt and Lease Obligations.*"

On October 23, 2009, the Company entered into a binding term sheet (the "Term Sheet") with BGP Inc., China National Petroleum Corporation, a company organized under the laws of the People's Republic of China ("BGP"), which sets forth, among other things, the principal terms for a proposed joint venture between BGP and the Company. In connection with the execution of the Term Sheet, the Company entered into an amendment to the Amended Credit Facility (the "Sixth Amendment"), that, among other things, (i) increased the aggregate revolving commitment amount under the Amended Credit Facility from \$100.0 million to \$140.0 million, (ii) permitted Bank of China, New York Branch ("Bank of China"), to join the Amended Credit Facility as a lender, and (iii) modified, or provided limited waivers of, certain of the financial and other covenants contained in the Amended Credit facility. This bridge financing arrangement consisted of the following:

- Two promissory notes (the "Convertible Notes") issued to Bank of China under the Amended Credit Facility as amended by the Sixth Amendment, both convertible into shares of the Company's common stock; and
- A Warrant Issuance Agreement with BGP, under which the Company granted BGP a warrant (the "Warrant") to purchase shares of the Company's common stock that may be exercised in lieu of conversion of the Convertible Notes.

In October 2009, the Company borrowed an aggregate of \$40.0 million in the form of revolving credit bridge financing arranged by BGP from Bank of China, New York Branch and evidenced by the Convertible Notes mentioned directly above. This borrowing was permitted by the terms of the Sixth Amendment to the Credit Facility. See further discussion below at Note 2 "*— Term Sheet with BGP and Bridge Financing Transactions.*"

As a result of the Company's bridge financing arrangements that the Company entered into in October 2009, the Company believes that its liquidity will be sufficient to fund its operations until such time as the transactions with BGP are completed or alternate financing could be obtained. As a result of the Company's entering into the Sixth Amendment, the Company believes that the waivers of the financial covenants contained in the Amended Credit Facility for the fiscal quarters ending September 30, 2009, December 31, 2009, March 31, 2010 and June 30, 2010 should enable the Company to conduct its operations without defaulting under the Amended Credit Facility until the transactions under the Term Sheet are completed. The Company currently expects these transactions to be completed during March 2010. Without these waivers, the Company would not have been in compliance with certain of its financial covenants at September 30, 2009 or December 31, 2009.

If the proposed transactions under the Term Sheet are not completed by March 31, 2010, then the current waivers, upon notice from the lenders after a designated period of time, would cease to be effective and the Company at that time would likely not be in compliance with certain of the financial covenants contained in the Amended Credit Facility, which could then result in an event of default. As the current waivers cover a period of less than twelve months from December 31, 2009, the Company has classified its long-term indebtedness under its revolving line of credit and term loan facility under the Amended Credit Facility as current at December 31, 2009. As a result of the cross-default provisions in its secured equipment financing and its amended and restated subordinated seller note, the Company has also classified these long-term obligations as current at December 31, 2009.

Even though the Company believes the joint venture with BGP will be completed as planned, there are certain events outside of the Company's control (such as the Company experiencing a material adverse event or condition that results in a material adverse effect on the Company's business, its prospects or results of operations) that could cause the closing of the joint venture to be delayed, terminated or abandoned. In such event, the Company would need to seek to amend, or seek additional covenant waivers under, the Amended Credit Facility. Even though the lenders under the Amended Credit Facility have demonstrated their willingness to work with the Company in amending or providing sufficient waivers to its facility, there can be no assurance that the Company would be able to obtain any such waivers or amendments in the future. If the Company were to be unable to obtain such waivers or amendments from the lenders, the Company would likely seek to replace or pay off the Amended Credit Facility with new secured debt, unsecured debt or equity financing.

As part of the formation of the joint venture, the Company has been in discussions with various financial institutions (both domestic and international) on the refinancing of the Company's debt. As a result of these discussions and with the recent improvements within the financial markets, the Company believes that in the unlikely event the joint venture is not completed as planned, the Company would be able to obtain additional debt or equity financings sufficient to meet its obligations. However, there also can be no assurance that such debt or equity financing would be available on terms acceptable to the Company or at all.

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 exact precision. Areas involving significant estimates include, but are not limited to, accounts and notes receivable, inventory valuation, sales forecast related to multi-client data libraries, goodwill and intangible asset valuation, deferred taxes, and accrued warranty costs. Actual results could 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, 2009 and 2008, there were \$1.5 million and \$6.6 million, respectively, of short-term restricted cash that are used to secure standby and commercial letters of credit.

Accounts and Notes Receivable. Accounts and notes receivable are recorded at cost, less the related allowance for doubtful accounts and notes. 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. The Company considers an account or note to be impaired when it is probable that the Company will be unable to collect all amounts due according to the contractual terms. When a note receivable is considered impaired, the amount of the impairment is measured based on the present value of expected future cash flows or the fair value of collateral. Impairment losses (recoveries) are included in the allowance for doubtful accounts and notes through an increase (decrease) in bad debt expense.

Notes receivable are generally collateralized by the products sold and bear interest at contractual rates ranging from 8.0% to 12.0% per year. For non-interest bearing notes with a maturity greater than one year, or those notes which the stated rate of interest is considered a below market rate of interest, the Company imputes interest using prevailing market rates at the note's origination. Cash receipts on impaired notes are applied to reduce the principal amount of such notes until the principal has been recovered and are recognized as interest income thereafter. The Company records interest income on investments in notes receivable on the accrual basis of accounting. The Company does not accrue interest on impaired loans where collection of interest according to the contractual terms is considered doubtful. Among the factors the Company considers in making an evaluation of the collectibility of interest are: (i) the status of the loan; (ii) the fair value of the underlying collateral; (iii) the financial condition of the borrower; and (iv) anticipated future events.

Inventories. Inventories are stated at the lower of cost (primarily standard cost, which approximates 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, Equipment and Seismic Rental Equipment. Property, plant, equipment and seismic rental equipment are stated at cost. Depreciation expense is provided straight-line over the following estimated useful lives:

	<u>Years</u>
Machinery and equipment	3-8
Buildings	10-20
Rental equipment	2-7
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 periodically evaluates the net realizable value of long-lived assets, including property, plant, equipment and seismic rental equipment, 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, equipment and seismic rental equipment during 2009, 2008 and 2007.

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 the years ended December 31, 2009, 2008, and 2007, the Company capitalized, as part of its multi-client data library, \$3.8 million, \$5.4 million, and \$4.3 million, respectively, of direct

internal processing costs. At December 31, 2009 and 2008, multi-client data library creation and accumulated amortization consisted of the following:

	December 31,	
	2009	2008
Gross costs of multi-client data creation	\$ 337,516	\$ 247,881
Less accumulated amortization	(206,811)	(158,362)
Total	<u>\$ 130,705</u>	<u>\$ 89,519</u>

The Company’s method of amortizing the costs of a multi-client data library available for commercial sale is the greater of (i) the percentage of actual revenue to the total estimated revenue multiplied by the total cost of the project (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 total 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 Accounting Standard Codification (ASC) Topic 360 “*Accounting for the Impairment and Disposal of Long-Lived Assets*,” 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 2009, 2008 and 2007.

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, 2009, the total costs of software were \$11.7 million, less accumulated amortization of \$9.7 million. Amortization expense was \$1.6 million, \$2.0 million and \$2.1 million, respectively, for the years ended December 31, 2009, 2008 and 2007.

Cost Method Investments. Certain of the Company’s investments are accounted for under the cost method. The cost method investments 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 8 “— *Cost Method Investment*.” The aggregate carrying amount of cost method investments was \$0.5 million and \$5.0 million at December 31, 2009 and 2008, respectively, and included within Other Assets.

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 notes receivable, 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 \$286.0 million at December 31, 2009. Approximately \$118.0 million of the Company’s revolving credit borrowings and \$101.6 million of the Company’s Term Loan were re-negotiated in October 2009. Additionally, the debt under the ICON Loan Agreements totaling \$19.1 million at December 31, 2009

was negotiated in June 2009. As a result, a majority of the Company's principal debt facilities were re-negotiated within the fourth quarter of 2009 using current market rates. Also, a majority of the Company's indebtedness is variable-rate, which approximates fair value.

In 2007, 2008 and 2009, 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. For purposes of performing the impairment test for goodwill as required by ASC 350, the Company established the following reporting units: Land Imaging Systems (including ARAM Systems, Ltd. ("ARAM")), Sensor Geophone, Marine Imaging Systems, Data Management Solutions, and ION 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 and certain indefinite-lived intangible assets at least annually for impairment, or more frequently if facts and circumstances indicate that 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 contains goodwill, is determined to be less 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 allocating first the current 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 goodwill is less than the carrying value of goodwill, to record an impairment loss of goodwill as the difference between the implied and carrying value amounts on the Consolidated Statements of Operations in the period in which the impairment is determined. See further discussion, including the impairment of goodwill, below at Note 9 "*Goodwill.*"

The intangible assets other than goodwill relate to proprietary technology, patents, customer relationships, trade names and non-compete agreements 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, below at Note 10 "*Intangible Assets.*"

Intangible assets amortized on a straight-line basis are:

	<u>Estimated Useful Life (Years)</u>
Proprietary technology	4-8
Customer relationships	8
Patents	5-20
Trade names	5
Non-compete agreements	5

Intangible assets amortized on an accelerated basis are:

	<u>Estimated Economic Life (Years)</u>
Customer relationships	15
Intellectual property rights	5

Fair Value. ASC 820-10, "*Fair Value Measurements,*" (ASC 820-10) 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 include 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.

- *Goodwill and Intangible Assets.* In 2008 and 2009, the Company performed a valuation of its goodwill and intangible asset balances. Both 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 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 9 “— *Goodwill*” and Note 10 “— *Intangible Assets*.”
- *Warrant.* The Warrant issued to BGP in October 2009 had an initial fair value of \$15.4 million, which was comprised of Level 2 inputs and was listed on the balance sheet as a current liability. On December 31, 2009, the Warrant was re-valued at approximately \$44.8 million. For further information, see Note 12 “— *Notes Payable, Long-Term Debt and Lease Obligations*.”

The Warrant is the only material transactions currently requiring recurring fair value calculations. The fair value of the Warrant was estimated using a Black-Scholes model, which includes a variety of inputs. The key inputs for the Black-Scholes model include 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 31, 2010) and the Company stock's historical and implied volatility.

- *Cost Method Investments.* In 2009, the Company performed a fair value analysis based upon 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 8 “— *Cost Method Investment*.”

Revenue Recognition and Product Warranty. The Company derives revenue from the sale and rental of (i) acquisition systems and other seismic equipment within its Land Imaging Systems and Marine Imaging Systems segments; (ii) imaging services, multi-client surveys and licenses of “off-the-shelf” data libraries within its ION Solutions segment; and (iii) navigation, survey and quality control software systems within its Data Management Solutions segment.

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.

The Company's Land Imaging Systems segment receives rental income from the rental of seismic equipment. The rental is in the form of operating leases as the lease terms range from a couple of days to several months. Rental revenue is recognized on a straight line basis over the term of the operating lease.

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.

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.

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*," and allocates revenue to each element based upon its vendor-specific objective evidence of fair value, so long as each such element meets the criteria for treatment as a separate unit of accounting. The Company limits the amount of revenue recognized for delivered elements to the amount that is not contingent on the future delivery of products or services. The Company generally does not grant return or refund privileges to its customers. When undelivered elements, such as training courses and engineering services, are inconsequential or perfunctory and not essential to the functionality of the delivered elements, the Company recognizes revenue on the total contract and makes a provision for the costs of the incomplete elements.

For the sales of navigation, survey and quality control software systems, the Company follows the requirements of ASC 985-605 "*Software Revenue Recognition*," because in those systems the software is more than incidental to the arrangement as a whole. Following the requirements of ASC 985-605 "*Applicability of AICPA Statement of Position 97-2 to Non-Software Deliverables in an Arrangement Containing More-Than-Incidental Software*," the Company considers the hardware within these systems to be a software-related item because the software is essential to the hardware's functionality. As a result, the Company recognizes revenue from sales of navigation, survey and quality control 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 and software-related hardware 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. 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 of fair value of the element or, if vendor-specific objective evidence 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 these time-based licenses, the Company recognizes revenue ratably over the contract term, which is generally two to five years.

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. net deferred tax assets and will continue to reserve for a significant portion of U.S. net 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) and foreign currency translation adjustments, is presented in the Consolidated Statements of Stockholders’ Equity and Comprehensive Income (Loss). The balance in Accumulated Other Comprehensive Income (Loss) consists of foreign currency translation adjustments. In 2009 and 2008, the Company recorded in Accumulated Other Comprehensive Income (Loss) the tax impact of currency translation adjustments of \$1.0 million and \$2.3 million, respectively.

Net Income (Loss) per Common Share. Basic net income (loss) per common share is computed by dividing net income (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. The total number of shares issuable under anti-dilutive options at December 31, 2009, 2008 and 2007 were 7,766,188, 7,893,275 and 1,550,800, respectively.

The Convertible Notes and Warrant entered into on October 23, 2009 were anti-dilutive. See further discussion of these transactions at Note 2 “— *Term Sheet with BGP and Bridge Financing Transactions.*”

There are 70,000 outstanding shares of Series D Cumulative Convertible Preferred Stock, which the Company believes may currently be converted, at the holder’s election, into up to 9,669,434 shares of common stock. See further discussion on the resetting of the Series D Preferred Stock conversion provisions at Note 13 “— *Cumulative Convertible Preferred Stock*” and Note 19 “— *Legal Matters.*” The outstanding shares of all Series D Preferred Stock were anti-dilutive for the years ended December 31, 2009, 2008 and 2007.

As shown in the table below, the Company’s convertible senior notes that matured on December 15, 2008 were dilutive for the year ended December 31, 2007.

The following table summarizes the calculation of the weighted average number of common shares and weighted average number of diluted common shares outstanding for purposes of the computation of basic net income (loss) per common share and diluted net income (loss) per common share (in thousands, except per share amounts):

	<u>Years Ended December 31,</u>		
	<u>2009</u>	<u>2008</u>	<u>2007</u>
Net income (loss) applicable to common shares	\$(113,559)	\$(293,713)	\$40,256
Income impact of assumed convertible debt conversion	—	—	3,694
Net income (loss) after impact of assumed convertible debt conversion	<u>\$(113,559)</u>	<u>\$(293,713)</u>	<u>\$43,950</u>
Weighted average number of common shares outstanding	110,516	95,887	81,941
Effect of dilutive stock awards	—	—	2,629
Effect of assumed convertible debt conversion	—	—	<u>12,751</u>
Weighted average number of diluted common shares outstanding	<u>110,516</u>	<u>95,887</u>	<u>97,321</u>
Net income (loss) per basic share	<u>\$ (1.03)</u>	<u>\$ (3.06)</u>	<u>\$ 0.49</u>
Net income (loss) per diluted share	<u>\$ (1.03)</u>	<u>\$ (3.06)</u>	<u>\$ 0.45</u>

Foreign Currency Gains and Losses. Assets and liabilities of the Company's subsidiaries operating outside the United States which 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) in the Consolidated Statements of Stockholders' Equity and 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 \$(3.8) million, \$3.1 million and \$(1.8) million for the years ended December 31, 2009, 2008 and 2007, respectively.

Concentration of Credit and Foreign Sales Risks. No single customer represented 10% or more of the Company's consolidated net revenues for the years ended December 31, 2009, 2008 and 2007; however, the Company's top five customers in total represented approximately 29%, 30% and 31%, 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 the twelve months ended December 31, 2009, the Company recognized \$92.8 million of sales to customers in Europe, \$67.2 million of sales to customers in Asia Pacific, \$25.4 million of sales to customers in Africa, \$42.4 million of sales to customers in the Middle East, \$34.3 million of sales to customers in Latin American countries and \$4.7 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 the years ended December 31, 2009, 2008 and 2007, international sales comprised 64%, 60% and 62%, respectively, of total net revenues. In recent years, the CIS and certain Latin American countries have experienced economic problems and uncertainties. However, given the recent market downturn, more countries and areas of the world have also begun to experience 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 collectibility 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 the twelve months ended December 31, 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 the current year and were therefore recorded in the second quarter of 2009.

Recent Accounting Pronouncements. In October 2009, the Financial Accounts Standards Board (FASB) issued Accounting Standard Update (ASU) No. 2009-13 on ASC 605, "Revenue Recognition — Multiple Deliverable Revenue Arrangements — a consensus of the FASB Emerging Issues Task Force" (ASU 2009-13). ASU 2009-13 amended guidance related to multiple-element arrangements which requires an entity to allocate arrangement consideration at the inception of an arrangement to all of its deliverables based on their relative selling prices. The consensus eliminates the use of the residual method of allocation and requires the relative-

selling-price method in all circumstances. All entities must adopt the guidance no later than the beginning of their first fiscal year beginning on or after June 15, 2010. Entities may elect to adopt the guidance through either prospective application for revenue arrangements entered into, or materially modified, after the effective date or through retrospective application to all revenue arrangements for all periods presented. The Company is currently evaluating the impact, if any, of ASU 2009-13 on the Company's financial position and results of operations.

In October 2009, the FASB issued ASU No. 2009-14 on ASC 985, "*Certain Revenue Arrangements That Include Software Elements*" (ASU 2009-14). ASU 2009-14 amended guidance that is expected to significantly affect how entities account for revenue arrangements that contain both hardware and software elements. As a result, many tangible products that rely on software will be accounted for under the revised multiple-element arrangements revenue recognition guidance, rather than the software revenue recognition guidance. The revised guidance must be adopted by all entities no later than fiscal years beginning on or after June 15, 2010. An entity must select the same transition method and same period for the adoption of both this guidance and the revisions to the multiple-element arrangements guidance noted above. The Company is currently evaluating the impact, if any, of ASU 2009-14 on the Company's financial position and results of operations.

In August 2009, the FASB issued ASU 2009-05, "*Fair Value Measurements and Disclosures, Measuring Liabilities at Fair Value (Topic 820)*" (ASU 2009-05). ASU 2009-05 provides additional clarification on valid valuation techniques using acquired prices in active markets for identical liabilities. The provisions for ASU 2009-05 were effective for interim period ending after August 2009. The adoption of ASU 2009-05 did not have a material impact to the company's financial position, results of operations or cash flows.

In June 2009, the FASB issued ASC 105-10, "*The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles — a replacement of FASB Statement No. 162*" (ASC 105-10). ASC 105-10 is the single, official source of authoritative, nongovernmental GAAP, other than guidance issued by the SEC and is effective for interim or annual financial periods ending after September 15, 2009. The Company adopted this statement on September 15, 2009 and has updated all existing GAAP references to the new codification.

In April 2009, the FASB issued ASC 825-10-65-1, "*Interim Disclosures about Fair Value of Financial Instruments*" (ASC 825-10-65-1). ASC 825-10-65-1 provides additional clarification on interim disclosures and require public companies to disclose the fair value of financial instruments whenever companies publish interim financial summary information. The provisions for ASC 825-10-65-1 were effective for interim periods ending after June 15, 2009 with earlier adoption permitted. The Company adopted ASC 825-10-65-1 on the effective date. The adoption of ASC 825-10-65-1 did not have a material impact to the Company's financial position, results of operation or cash flows.

In April 2009, the FASB issued ASC 320-10, "*The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments*" (ASC 320-10). ASC 320-10 provides additional guidance designed to create greater clarity and consistency in accounting for and presenting impairment losses on securities. This issuance changes (i) the method for determining whether an other-than-temporary impairment exists for debt securities and for cost method investments; and (ii) the amount of an impairment charge to be recorded in earnings. ASC 320-10 was effective for interim and annual periods ending after June 15, 2009. The adoption of ASC 320-10 did not have a material impact to the Company's financial position, results of operation or cash flows.

In September 2008, the FASB issued ASC 260-10, "*Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities*" (ASC 260-10), which was effective for fiscal years beginning after December 15, 2008. ASC 260-10 would require unvested share-based payment awards containing non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) to be included in the computation of basic earnings per share according to the two-class method. The adoption of ASC 260-10 did not have a material impact on the Company's earnings per share computation.

Subsequent Events. In connection with preparation of the consolidated financial statements and in accordance with the recently issued ASC 855-10, "*Subsequent Events*," the Company evaluated subsequent

events after the balance sheet date of December 31, 2009 through March 1, 2010, the date of the Company's filing of this Form 10-K.

(2) Term Sheet with BGP and Bridge Financing Transactions

On October 23, 2009, the Company entered into the Term Sheet with BGP, which provides for, among other things, the formation of a joint venture between the Company and BGP involving the Company's land-based seismic data acquisition equipment business.

The Term Sheet contemplates that the Company will enter into a purchase agreement with BGP under which (i) BGP will acquire from the Company a 51% equity interest in the joint venture for an aggregate purchase price of \$108.5 million cash to be paid to the Company and the contribution by BGP to the joint venture of certain assets and certain related liabilities of BGP that relate to the joint venture's business and (ii) the Company will retain a 49% interest in the joint venture in exchange for the contribution of certain assets and certain related liabilities that relate to the Company's land business. The assets of each party to be transferred to the joint venture will include seismic recording systems, inventory, certain intellectual property rights and contract rights, all as may be necessary to own and operate the business of the joint venture.

The scope of the joint venture's business is defined in the Term Sheet as being the business of designing, development, engineering, manufacturing, research and development, distribution, sales and marketing and field support of land-based equipment used in seismic data acquisition for the petroleum industry. Excluded from the scope of the joint venture's business will be (x) the analog sensor businesses of the Company and BGP and (y) the businesses of certain companies in which BGP or the Company are currently a minority owner. In addition to these excluded businesses, all of the Company's other businesses — including the Marine Imaging Systems, Data Management Solutions and ION Solutions, which includes GXT's Imaging Solutions, Integrated Seismic Solutions (ISS) and BasinSPAN™ and seismic data libraries — will remain owned and operated by the Company and will not comprise a part of the joint venture.

Under the Term Sheet, the parties agreed to use their best efforts to cause the closing of the joint venture and related transactions to occur as soon as practicable following the execution of the definitive transaction documents, and on or before the later to occur of the following dates: (i) December 31, 2009 or (ii) 10 business days following the date on which all necessary regulatory approvals (including receiving clearance from the Committee on Foreign Investment in the United States (CFIUS) to complete the transactions) have been obtained, but in any event, no later than March 31, 2010.

The parties' obligations under the Term Sheet may be terminated (i) by written agreement of the parties, (ii) by either party in the event that such party's conditions have not been satisfied on or before March 31, 2010 (subject to a 15-day cure period) or (iii) by either party in the event that certain mutual conditions have not been satisfied on or before March 31, 2010. In addition, BGP and the Company have each agreed to pay the other a break-up fee of \$5.0 million if either party determines to terminate its obligations under the Term Sheet because the other party has failed to satisfy certain conditions (including conditions precedent to closing that (a) the other party has not experienced a material adverse event or condition that has resulted in a material adverse effect on its business, prospects and results of operations change, (b) the other party has not breached any of its representations and warranties contained in the Term Sheet and such representations and warranties continue to be true and correct and (c) with respect to BGP's obligations under the Term Sheet, ION has not suffered any material default or accelerations of any of its liabilities).

On October 27, 2009, the Company borrowed an aggregate of \$40.0 million in the form of revolving credit bridge financing arranged by BGP from Bank of China, New York Branch and evidenced by the Convertible Notes. This borrowing was permitted by the terms of the Sixth Amendment to the Credit Facility, which increased the aggregate revolving commitment amount under the accordion feature provisions of the Amended Credit Facility from \$100.0 million to \$140.0 million and permitted Bank of China to join the Amended Credit Facility as a lender.

The Convertible Notes provide that at the stated initial conversion price of \$2.80 per share, the full \$40.0 million principal amount under the Convertible Notes would be convertible into 14,285,714 shares of

Common Stock. The Convertible Notes provide that the conversion price and the number of shares into which the notes may be converted are subject to adjustment on terms and conditions similar to those contained in the Warrant.

As part of BGP arranging for the Bank of China to join the Amended Credit Facility, the Company granted to BGP the Warrant. The Warrant will be exercisable, in whole or in part, at any time and from time to time, subject to the conditions described below. The Warrant will initially entitle the holder thereof to purchase a number of shares of common stock equal to \$40.0 million divided by the exercise price of \$2.80 per share, subject to adjustment as described below. At the initial exercise price of \$2.80 per share, at such time as the Warrant becomes exercisable, it would initially be fully exercisable for 14,285,714 shares of common stock.

The Warrant will only become exercisable and the Convertible Notes will only become convertible upon receipt of certain governmental approvals. Any conversions of the Convertible Notes and prior exercises of the Warrant will reduce the dollar amount under the Warrant into which the exercise price may be divided to determine the number of shares that may be acquired upon exercise.

The exercise price under the Warrant and conversion prices under the Convertible Notes will be subject to adjustment upon the occurrence of a "Triggering Event." A "Triggering Event" will occur in the event that the joint venture transactions cannot be completed by March 31, 2010, solely as a result of the occurrence of a statement, order or other indication from any relevant governmental regulatory agency that (a) the transactions would not be approved, would be opposed, objected to or sanctioned or (b) the transactions or BGP's business and operations would be required to be altered (or upon the earlier abandonment of such transactions due to any such statement, indication or order). In such event, the exercise price and conversion price per share will be adjusted (but not to an amount that exceeds \$2.80 per share) to a price per share that is equal to 75% of the lowest trading price of the Company's common stock over a ten-consecutive-trading-day period, beginning on and inclusive of the first trading day following the public announcement of any failure to complete such transactions (or the abandonment thereof), which failure of abandonment was the result of the Triggering Event. The exercise price of the Warrant and conversion prices of the Convertible Notes are also subject to certain customary anti-dilution adjustment.

The Warrant provides for certain cashless exercise rights that are exercisable by the holder of the Warrant in the event that certain governmental approvals from the People's Republic of China permitting the exercise of the Warrant for cash are not obtained.

See further discussion of the accounting impact of the Warrant at Note 12 "*— Notes Payable, Long-Term Debt and Lease Obligations.*"

Additionally, the Term Sheet provides that when the joint venture transactions are closed:

- BGP will have purchased approximately 23.8 million shares of the Company's common stock for \$66.6 million and thereby own, before giving effect to the issuance of those shares, approximately 19.99% of the Company's outstanding common stock.
- To the extent that shares are not purchased by BGP under the Warrant prior to closing, the new revolving credit loans from Bank of China, evidenced by the Convertible Notes will convert into approximately 14.3 million shares of ION common stock and will be credited against the approximately 23.8 million shares of ION stock to be purchased by BGP at the transaction closing.
- ION will appoint a designee of BGP to its Board of Directors to serve with the current nine members of ION's Board of Directors.
- BGP will arrange for the Company's then-outstanding long-term debt under the Amended Credit Facility (currently \$101.6 million outstanding at February 22, 2009) to be refinanced at the joint venture closing.
- ION will use a portion of the proceeds from the transactions to pay off and retire the Company's outstanding indebtedness under its current revolving credit facility (after giving effect to the

\$40.0 million in additional revolving credit borrowings under the existing Amended Credit Facility, approximately \$118.0 million, excluding the non-cash debt discount, is currently outstanding at February 22, 2009) and \$35.0 million in seller subordinated indebtedness incurred in connection with the acquisition of ARAM in September 2008.

- ION will receive a new \$100 million revolving credit facility at the joint venture closing.
- The \$19.1 million (as of December 31, 2009) secured equipment financing transaction with ICON will be assigned to and become indebtedness of the joint venture.

(3) ARAM Acquisition

In July 2008, the Company signed a share purchase agreement to acquire all of the outstanding shares of ARAM Systems Ltd., a Canadian-based provider of cable-based land seismic recording systems, and its affiliated company, Canadian Seismic Rentals Inc. (sometimes collectively referred to herein as “ARAM”), from their shareholders (“the Sellers”). Founded in 1971, ARAM designs, manufactures, sells and leases land seismic data acquisition systems, specializing in analog cabled systems. On September 17, 2008, the Company, ARAM and the Sellers entered into an Amended and Restated Share Purchase Agreement (the “Amended Purchase Agreement”), which amended the terms of the original share purchase agreement executed in July 2008. On September 18, 2008, the Company, through its acquisition subsidiary, 3226509 Nova Scotia Company (“ION Sub”), completed the acquisition of the outstanding shares of ARAM in accordance with the terms of the Amended Purchase Agreement.

The Company acquired ARAM for the purpose of advancing the Company’s strategy and market penetration in the land seismic recording system business. The operations of ARAM were combined with those of the Company as of September 19, 2008. The acquisition was accounted for by the purchase method, with the purchase price allocated to the fair value of assets purchased and liabilities assumed. The allocation of the purchase price, including related direct costs, for the acquisition is as follows (in thousands):

Fair values of assets and liabilities:

Net current assets	\$ 69,827
Property, plant, equipment and seismic rental equipment	24,026
Net other long-term assets	2,480
Intangible assets	101,800
Goodwill	173,836
Deferred tax liability	(31,723)
Capital lease obligations	<u>(3,453)</u>
Total allocated purchase price	336,793
Less non-cash consideration — issuance of common stock	(48,958)
Less issuance of seller notes	(45,000)
Less cash of acquired business	<u>(10,677)</u>
Cash paid for acquisition, net of cash acquired	<u>\$232,158</u>

The intangible assets of ARAM relate to customer relationships, proprietary technology, trade names and non-compete agreements, which are being amortized over their estimated useful lives ranging from five to eight years. At December 31, 2008, the Company completed its annual impairment test for goodwill, including its intangible assets. As a result of the overall economic crisis, which significantly decreased the current demand for analog acquisition products, especially in North America and Russia, the Company determined that the goodwill associated with the ARAM acquisition and a portion of ARAM’s acquired intangible assets were impaired. At March 31, 2009, the Company performed an interim impairment test on the intangible assets of ARAM based upon the continued depressed market conditions and determined that \$38.0 million of intangibles related to ARAM’s proprietary technology and customer relationships was impaired. See further

discussion of goodwill and intangible assets and the impairment of these assets at Note 9 “— Goodwill” and Note 10 “— Intangible Assets.”

The following summarized unaudited pro forma consolidated income statement information for the years ended December 31, 2008 and 2007, assumes that the ARAM acquisition had occurred as of the beginning of the periods presented. The Company has prepared these unaudited pro forma financial results for comparative purposes only. These unaudited pro forma financial results may not be indicative of the results that would have occurred if the Company had completed the acquisitions as of the beginning of the periods presented or the results that will be attained in the future.

	<u>Years Ending December 31</u>	
	<u>2008</u>	<u>2007</u>
Pro forma net revenues	\$ 741,982	\$838,022
Pro forma income (loss) from operations	\$(201,603)	\$ 91,994
Pro forma net income (loss)	\$(302,890)	\$ 42,931
Pro forma basic net income (loss) per common share	\$ (3.08)	\$ 0.50
Pro forma diluted net income (loss) per common share	\$ (3.08)	\$ 0.46

(4) Accounts and Notes Receivable

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

	<u>December 31,</u>	
	<u>2009</u>	<u>2008</u>
Accounts receivable, principally trade	\$116,720	\$156,250
Less allowance for doubtful accounts	<u>(5,674)</u>	<u>(5,685)</u>
Accounts receivable, net	<u>\$111,046</u>	<u>\$150,565</u>

A summary of notes receivable, accrued interest, and allowance for doubtful notes is as follows (in thousands):

	<u>December 31,</u>	
	<u>2009</u>	<u>2008</u>
Notes receivable and accrued interest	\$13,438	\$16,103
Less allowance for doubtful notes	<u>(71)</u>	<u>—</u>
Notes receivable, net	13,367	16,103
Less current portion notes receivable, net	<u>13,367</u>	<u>11,665</u>
Long-term notes receivable	<u>\$ —</u>	<u>\$ 4,438</u>

The activity in the allowance for doubtful notes receivable is as follows (in thousands):

	<u>Years Ended December 31,</u>		
	<u>2009</u>	<u>2008</u>	<u>2007</u>
Balance at beginning of period	\$—	\$ 3,351	\$ 4,530
Additions charged to bad debt expense	71	—	—
Write-offs charged against the allowance	<u>—</u>	<u>(3,351)</u>	<u>(1,179)</u>
Balance at end of period	<u>\$71</u>	<u>\$ —</u>	<u>\$ 3,351</u>

(5) **Inventories**

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

	December 31,	
	2009	2008
Raw materials and subassemblies	\$111,022	\$104,862
Work-in-process	10,129	20,698
Finished goods	112,068	161,065
Reserve for excess and obsolete inventories	<u>(30,618)</u>	<u>(24,106)</u>
Total	<u>\$202,601</u>	<u>\$262,519</u>

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 the years ended December 31, 2009, 2008 and 2007, the Company recorded inventory obsolescence and excess inventory charges of approximately \$9.0 million, \$14.0 million, and \$5.3 million, respectively. In 2009, the majority of the increase in the reserves for excess and obsolete inventory in 2009 related to Marine Imaging Systems mature acquisition systems and source products.

(6) **Supplemental Cash Flow Information and Non-Cash Activity**

Supplemental disclosure of cash flow information is as follows (in thousands):

	Years Ended December 31,		
	2009	2008	2007
Net cash paid during the period for:			
Interest	\$24,051	\$ 5,251	\$3,370
Income taxes	22,184	14,894	7,470

During the twelve months ended December 31, 2009, the Company transferred approximately \$48.6 million of inventories, at cost, to its seismic rental equipment pool.

In October 2009, the Company entered into a bridge financing that included the Warrant and the Convertible Notes. See further discussion of these transactions at Note 2 "*Term Sheet with BGP and Bridge Financing Transactions.*" As a result, the Company recorded a \$15.4 million discount on the Convertible Notes associated with the day-one fair value of the Warrant. The Company also recorded a subsequent fair value adjustment of \$29.4 million, reflecting a total non-cash liability associated with the Warrant of \$44.8 million at December 31, 2009.

In September 2008, the Company acquired all of the share capital of ARAM. As part of the consideration for this acquisition, the Company issued to one of the Sellers (i) 3,629,211 shares of the Company's common stock valued at \$49.0 million and (ii) the Senior Seller Note and the Subordinated Seller Note in the aggregate original principal amount of \$45.0 million. See further discussion of this acquisition at Note 3 "*ARAM Acquisition*" above.

In November 2007, approximately \$52.8 million of the Company's \$60.0 million 5.5% convertible senior notes was converted. This resulted in a non-cash reclassification from long-term debt to stockholders' equity as the Company issued approximately 12.2 million shares. In July 2008, approximately \$4.0 million of the Company's \$7.2 million 5.5% convertible senior notes was converted. This resulted in a non-cash reclassification from long-term debt to stockholders' equity as the Company issued approximately 0.9 million shares.

In 2009, 2008 and 2007, the Company purchased \$0.4 million, \$5.9 million and \$6.0 million, respectively, of computer and other equipment, which were financed through capital leases.

(7) Property, Plant, Equipment and Seismic Rental Equipment

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

	December 31,	
	2009	2008
Land	\$ 25	\$ 25
Buildings	15,710	15,697
Machinery and equipment	90,656	103,377
Lease and seismic rental equipment	65,856	18,329
Furniture and fixtures	4,735	4,834
Other	1,187	5,722
Total	178,169	147,984
Less accumulated depreciation	(99,614)	(88,855)
Property, plant, equipment and seismic rental equipment, net	<u>\$ 78,555</u>	<u>\$ 59,129</u>

Total depreciation expense for the years ended December 31, 2009, 2008 and 2007 was \$32.1 million, \$19.2 million and \$16.4 million, respectively. At December 31, 2009, a building of \$6.7 million at cost, less accumulated depreciation of \$4.7 million is continuing to be depreciated over its useful life, pursuant to a ten-year non-cancelable lease agreement (see Note 12 “— Notes Payable, Long-term Debt and Lease Obligations”).

(8) Cost Method Investment

In December 2004, the Company sold all of the capital stock of Applied MEMS, a wholly-owned subsidiary, to Colibrys Ltd. (Colibrys), a privately-held firm based in Switzerland. Colibrys manufactures micro-electro-mechanical-systems (MEMS) accelerometers used in the Company’s VectorSeis digital, full-wave seismic sensors, as well as products for applications that include test and measurement, earthquake and structural monitoring, and defense. In exchange for the stock of Applied MEMS, the Company received shares of Colibrys equal to approximately 10% of the outstanding equity of Colibrys (valued at \$3.5 million), and the right to designate one member of the board of directors of Colibrys. Since 2004, the Company had made additional cash contributions to Colibrys of \$1.0 million. The investment is accounted for under the cost method.

To protect the Company’s intellectual property rights, the Company retained ownership of its MEMS intellectual property, and in connection with its investment in Colibrys, the Company licensed certain intellectual property to Colibrys on a royalty-free basis. Additionally, the Company received preferential rights to Colibrys’ MEMS technology for seismic applications involving natural resource extraction. The Company also entered into a five-year supply agreement with Colibrys and Applied MEMS, which provided for them to supply the Company with MEMS accelerometers on an exclusive basis in the Company’s markets at agreed prices consistent with market prices. This supply agreement expired in December 2009, and the Company has no further purchase obligations to buy MEMS from Colibrys.

As part of the periodic cost method investment impairment review, the Company identified its investment in Colibrys as meeting impairment indicators as of December 31, 2009. The Company then calculated the fair value of its investment and based upon the Company’s analysis, the Company determined that its investment was fully impaired from its original cost of \$4.5 million.

(9) Goodwill

On December 31, 2009, the Company completed the annual review of the carrying value of goodwill in the Marine Imaging Systems and Data Management Solutions reporting units and noted no impairments. The annual impairment test for 2009 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 further impairment charges.

On December 31, 2008, the Company completed the annual review of the carrying value of goodwill in the Land Imaging Systems (including ARAM), Marine Imaging Systems, Data Management Solutions and ION Solutions reporting units. For purposes of goodwill, ARAM was considered a separate reporting unit in 2008 since it was acquired late in that year and integration into Land Imaging Systems was not fully completed as of December 31, 2008. The Company determined during the fourth quarter of fiscal 2008 that the continued market and economic decline, the resulting decline in the North American and Russian land systems market, and the uncertainty of future revenues, income and related cash flows had resulted in impairments within its Land Imaging Systems, ARAM and ION Solutions reporting units. As a result of these evaluations, the Company determined the goodwill of these reporting units was fully impaired and recorded a goodwill impairment charge of \$242.2 million at December 31, 2008.

The following is a summary of the changes in the carrying amount of goodwill for the years ended December 31, 2009 and 2008 (in thousands):

	<u>Land Imaging Systems</u>	<u>Marine Imaging Systems</u>	<u>Data Management Solutions</u>	<u>ION Solutions Division</u>	<u>Total</u>
Balance at January 1, 2008	\$ 3,478	\$26,984	\$32,278	\$ 90,405	\$ 153,145
Goodwill acquired during the year	173,836	—	—	—	173,836
Impact of acquisition net operating losses	—	—	(730)	(3,496)	(4,226)
Impact of foreign currency translation adjustments	(22,064)	—	(8,760)	—	(30,824)
Impairment losses	<u>(155,250)</u>	<u>—</u>	<u>—</u>	<u>(86,909)</u>	<u>(242,159)</u>
Balance at December 31, 2008	—	26,984	22,788	—	49,772
Impact of foreign currency translation adjustments	<u>—</u>	<u>—</u>	<u>2,280</u>	<u>—</u>	<u>2,280</u>
Balance at December 31, 2009	<u>\$ —</u>	<u>\$26,984</u>	<u>\$25,068</u>	<u>\$ —</u>	<u>\$ 52,052</u>

During fiscal year 2008, the Company made adjustments to goodwill related to the tax affected portion of the net operating losses (NOLs) utilized with respect to the Company's previous GXT and Concept Systems acquisitions in 2004. These adjustments resulted in reductions of approximately \$4.2 million to the Company's goodwill balances.

(10) Intangible Assets

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. In the fourth quarter of 2008, the Company had recorded an intangible asset impairment charge of \$10.1 million, before tax, related to ARAM's customer relationships, trade name and non-compete agreements. This additional impairment during the first quarter of 2009 was the result of the continued overall economic and financial crisis, which has 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. As of December 31, 2009, no further impairment indicators were noted and no additional impairments of the Company's intangible assets had occurred. The Company's net book value associated with ARAM's acquired intangibles was \$34.8 million at December 31, 2009.

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

	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	<u>\$150,826</u>	<u>\$(51,016)</u>	<u>\$(38,044)</u>	<u>\$61,766</u>

	December 31, 2008			
	Gross Amount	Accumulated Amortization	Impairments	Net
Proprietary technology	\$ 80,755	\$(11,997)	\$ —	\$ 68,758
Customer relationships	50,641	(15,065)	(5,130)	30,446
Trade names	14,516	(4,260)	(4,207)	6,049
Patents	3,689	(2,735)	—	954
Intellectual property rights	3,050	(2,514)	—	536
Non-compete agreements	1,575	(89)	(786)	700
Total	<u>\$154,226</u>	<u>\$(36,660)</u>	<u>\$(10,123)</u>	<u>\$107,443</u>

Total amortization expense for intangible assets for the years ended December 31, 2009, 2008 and 2007 was \$13.4 million, \$11.2 million, and \$8.3 million, respectively. A summary of the estimated amortization expense for the next five years is as follows (in thousands):

Years Ended December 31,

2010	\$12,281
2011	\$10,604
2012	\$ 9,334
2013	\$ 8,411
2014	\$ 6,767

(11) Accrued Expenses

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

	December 31,	
	2009	2008
Compensation, including compensation-related taxes and commissions	\$20,144	\$24,446
Accrued multi-client data library acquisition costs	13,890	17,654
Accrued taxes (primarily income taxes)	11,159	6,143
Product warranty	5,088	10,526
Other	<u>15,612</u>	<u>18,669</u>
Total accrued expenses	<u>\$65,893</u>	<u>\$77,438</u>

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 estimated. 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):

	<u>Years Ended December 31,</u>		
	<u>2009</u>	<u>2008</u>	<u>2007</u>
Balance at beginning of period	\$10,526	\$13,439	\$ 6,255
Opening balance for accruals for warranties for acquired entity	—	845	—
Accruals (expirations) for warranties issued/expired during the period	(2,121)	4,624	13,074
Settlements made (in cash or in kind) during the period	<u>(3,317)</u>	<u>(8,382)</u>	<u>(5,890)</u>
Balance at end of period	<u>\$ 5,088</u>	<u>\$10,526</u>	<u>\$13,439</u>

(12) Notes Payable, Long-term Debt and Lease Obligations

<u>Obligations</u>	<u>December 31,</u>	
	<u>2009</u>	<u>2008</u>
\$140.0 million revolving line of credit	\$ 118,000	\$ 66,000
Term loan facility	101,563	120,313
Secured Equipment Financing	19,080	—
Bridge loan	—	40,816
Amended and restated subordinated seller note	35,000	35,000
Subordinated seller note	—	10,000
Facility lease obligation	4,174	4,610
Equipment capital leases and other notes payable	8,220	15,170
Unamortized non-cash debt discount	<u>(8,656)</u>	<u>—</u>
Total	277,381	291,909
Current portion of notes payable, long-term debt and lease obligations	<u>(271,132)</u>	<u>(38,399)</u>
Non-current portion of notes payable, long-term debt and lease obligations	<u>\$ 6,249</u>	<u>\$253,510</u>

Revolving Line of Credit and Term Loan — Amended Credit Facility. The Company, its subsidiary, ION International S.à r.l. (“ION Sàrl), and certain of the Company’s domestic and other foreign subsidiaries (as guarantors) are parties to a \$140.0 million amended and restated revolving credit facility and a \$125.0 million original principal amount term loan facility under the terms of its Amended Credit Facility, which is governed by the terms of its amended credit agreement with its commercial bank lenders. The revolving credit facility terminates on July 3, 2013 and provides additional flexibility for the Company’s international capital needs by permitting non-U.S. borrowings by ION Sàrl under the facility and providing the Company and ION Sàrl the ability to borrow in alternative currencies. Under the terms of the Amended Credit Agreement, up to \$84.0 million (or its equivalent in foreign currencies) is available for borrowings by ION Sàrl and up to \$105.0 million is available for borrowings by the Company; however, the total level of outstanding borrowings under the revolving credit facility may not exceed \$140.0 million. The term loan indebtedness was borrowed in September 2008 to fund a portion of the cash consideration for the ARAM acquisition.

The interest rate on borrowings under the Amended Credit Facility is, at the Company’s option, (i) an alternate base rate (either the prime rate of HSBC Bank USA, N.A., or a federal funds effective rate plus 0.50%, plus an applicable interest margin) or (ii) for Eurodollar borrowings and borrowings in Euros, pounds sterling or Canadian dollars, a LIBOR-based rate, plus an applicable interest margin. The amount of the applicable interest margin is determined by reference to a leverage ratio of total funded debt to consolidated

EBITDA for the four most recent trailing fiscal quarters. The interest rate margins range from 2.875% to 5.5% for alternate base rate borrowings, and from 3.875% to 6.5% for Eurodollar borrowings. As of December 31, 2009, the \$101.6 million in outstanding term loan indebtedness under the Amended Credit Facility and the \$118.0 million in total outstanding revolving credit indebtedness under the Amended Credit Facility accrued interest at an applicable LIBOR-based interest rate of 6.7% per annum. The average effective interest rates for the quarter ended December 31, 2009 under the LIBOR-based rates for both the term loan indebtedness and the Amended Credit Facility (as a whole) were 6.2%, respectively.

The Company and its bank lenders entered into a Fifth Amendment to the Amended Credit Facility in June 2009. The principal modifications, excluding the amended financial covenants listed further below, to the terms of the Amended Credit Agreement resulting from the Fifth Amendment were as follows:

- Increased applicable maximum interest rate margins in the event that the Company's leverage ratio exceeds 2.25 to 1.0 — from 4.5% to up to 5.5% for alternate base rate loans, and from 5.5% to up to 6.5% for LIBOR-rate loans;
- Modified a restricted payments covenant, permitting the Company to apply up to \$6.0 million of its available cash on hand to prepay the indebtedness under the Jefferies bridge loan agreement;
- Added a requirement for the Company to apply 50% of its "Excess Cash Flow," if any, calculated with respect to a just-completed fiscal year, to the prepayment of the term loan under the Amended Credit Agreement if the Company's fixed charge coverage ratio or its leverage ratio for the just-completed fiscal year did not meet certain requirements; and
- Modified the Amended Credit Agreement to prohibit any increase in the revolving commitments under the Amended Credit Facility until the Company had delivered its compliance certificate for the period ending September 30, 2009, and then only if certain fixed charge coverage ratio and leverage ratio requirements were met.

The Amended Credit Agreement contains covenants that restrict the Company, subject to certain exceptions, from:

- Incurring additional indebtedness (including capital lease obligations), granting or incurring additional liens on the Company's properties, pledging shares of the Company's subsidiaries, entering into certain merger or other similar transactions, entering into transactions with affiliates, making certain sales or other dispositions of assets, making certain investments, acquiring other businesses and entering into certain sale-leaseback transactions with respect to certain of the Company's properties; or
- Paying cash dividends on the Company's common stock and repurchasing and acquiring shares of the Company's common stock unless (i) there is no event of default under the Amended Credit Facility and (ii) the amount of cash used for cash dividends, repurchases and acquisitions does not, in the aggregate, exceed an amount equal to the excess of 30% of ION's domestic consolidated net income for the Company's most recently completed fiscal year over \$15.0 million.

The Amended Credit Facility also requires the Company to be in compliance with certain financial covenants, including requirements for the Company and its domestic subsidiaries to:

- Maintain a minimum fixed charge coverage ratio (which must be not less than 1.10 to 1.0 for the fiscal quarter ended December 31, 2009; 1.15 to 1.0 for the fiscal quarter ending March 31, 2010; 1.25 to 1.0 for the fiscal quarter ending June 30, 2010; 1.35 to 1.0 for the fiscal quarter ending September 30, 2010; and 1.50 to 1.0 the fiscal quarter ending December 31, 2010 and thereafter);
- Not exceed a maximum leverage ratio (3.00 to 1.0 for each of the fiscal quarters ended December 31, 2009; 2.75 to 1.0 for the fiscal quarter ending March 31, 2010 and June 30, 2010; 2.5 to 1.0 for the fiscal quarter ending September 30, 2010; and 2.25 to 1.0 the fiscal quarter ending December 31, 2010 and thereafter); and
- Maintain a minimum tangible net worth of at least 80% of the Company's tangible net worth as of September 18, 2008 (the date that the Company completed its acquisition of ARAM), plus 50% of the

Company's consolidated net income for each quarter thereafter, and 80% of the proceeds from any mandatorily convertible notes and preferred and common stock issuances for each quarter thereafter.

On October 23, 2009, the Company and ION S.à.r.l. entered into a Sixth Amendment to the Amended and Restated Credit Agreement that, among other things, (i) increased the aggregate revolving commitment amount under the Amended Credit Facility from \$100.0 million to \$140.0 million, (ii) permitted Bank of China, New York Branch, to join the Amended Credit Facility, (iii) modified, or provided limited waivers of, certain of the financial and other covenants contained in the Amended Credit Facility (including waivers to the extent necessary to permit the issuance of the BGP Warrant) and (iv) permitted the principal amount of the new revolving credit loans from Bank of China (as evidenced by the Convertible Notes) to be convertible into shares of our common stock. See further discussion on the proposed joint venture above at Note 2 "*Term Sheet with BGP and Bridge Financing Transactions.*"

The execution of the Sixth Amendment, which included waivers of the financial covenants contained in the Amended Credit Facility for the fiscal quarters ending September 30, 2009, December 31, 2009, March 31, 2010 and June 30, 2010, should enable the Company to conduct its operations without defaulting under the Amended Credit Facility until the transactions with BGP are completed, which the Company currently believes will occur in March 2010. Without these waivers, the Company would not have been in compliance with certain of its financial covenants at September 30, 2009 or at December 31, 2009. However, any failure to comply with the Company's other covenants under the Amended Credit Facility could result in an event of default that, if not cured or waived, could have a material adverse effect on the Company's financial condition, results of operations and debt service capabilities.

If the proposed transactions under the Term Sheet with BGP are not completed by March 31, 2010, then the current waivers, upon notice from the lenders after a designated period of time, would cease to be effective and the Company at that time would likely not be in compliance with certain of the financial covenants contained in the Amended Credit Facility, which could then result in an event of default. As the current waivers cover a period of less than twelve months from December 31, 2009, the Company has classified its long-term indebtedness under its revolving line of credit and term loan facility under the Amended Credit Facility as current at December 31, 2009. As a result of the cross-default provisions in its secured equipment financing and its amended and restated subordinated seller note, the Company has also classified these long-term obligations as current at December 31, 2009.

The term loan indebtedness under the Amended Credit Facility is subject to scheduled quarterly amortization payments of \$4.7 million per quarter until December 31, 2010. Commencing on December 31, 2010, the quarterly principal amortization increases to \$6.3 million per quarter until December 31, 2012, when the quarterly principal amortization amount increases to \$9.4 million for each quarter until maturity on September 17, 2013. The term loan indebtedness matures on September 17, 2013, but the terms of the Amended Credit Facility allow the administrative agent to accelerate the maturity date to a date that is six months prior to the maturity date of additional debt financing that the Company may incur to refinance certain indebtedness incurred in connection with the ARAM acquisition.

The Amended Credit Facility contains customary events of default provisions (including an event of default upon any "change of control" event affecting the Company), the occurrence of which could lead to an acceleration of ION's payment obligations under the Amended Credit Facility.

The Amended Credit Facility includes a \$35.0 million sub-limit for the issuance of documentary and stand-by letters of credit, of which \$1.2 million was outstanding at December 31, 2009. As of December 31, 2009, the Company had available \$20.0 million of additional revolving credit borrowing capacity, which can be used solely for funding additional letters of credit under the Amended Credit Facility.

The obligations of the Company and ION Sàrl under the Amended Credit Facility are guaranteed by certain domestic and foreign subsidiaries of the Company and are secured by security interests in stock of the domestic guarantors and certain first-tier foreign subsidiaries, and by substantially all of the Company's other assets and those of the guarantors. The obligations of ION Sàrl and the foreign guarantors are secured by

security interests in all of the stock of the foreign guarantors and the domestic guarantors, and substantially all of the Company's assets and the other assets of the foreign guarantors and the domestic guarantors.

Convertible Notes and Warrant. On October 27, 2009, the Company borrowed an aggregate of \$40.0 million in the form of revolving credit bridge financing arranged by BGP from Bank of China, New York Branch and evidenced by the Convertible Notes. This borrowing was permitted by the terms of the Sixth Amendment to the Credit Facility, which increased the aggregate revolving commitment amount under the accordion feature provisions of the Amended Credit Facility from \$100.0 million to \$140.0 million and permitted Bank of China to join the Amended Credit Facility as a lender. As further described above, the total outstanding indebtedness under the Amended Credit Facility, which includes the Bank of China bridge loans, was \$118.0 million, excluding the non-cash debt discount, at December 31, 2009.

The Convertible Notes, issued in October 2009 in connection with the execution of the Term Sheet with BGP, provide that at the stated initial conversion price of \$2.80 per share, the full \$40.0 million principal amount under the Convertible Notes would be convertible into 14,285,714 shares of Common Stock. The Convertible Notes provide that the conversion price and the number of shares into which the notes may be converted are subject to adjustment on terms and conditions similar to those contained in the Warrant.

As part of BGP arranging for the Bank of China to join the Amended Credit Facility, the Company granted the Warrant to BGP. The Warrant will be exercisable, in whole or in part, at any time and from time to time, subject to the conditions described below. The Warrant will initially entitle the holder thereof to purchase a number of shares of common stock equal to \$40.0 million divided by the exercise price of \$2.80 per share, subject to adjustment as described below. At the initial exercise price of \$2.80 per share, at such time as the Warrant becomes exercisable, it would initially be fully exercisable for 14,285,714 shares of common stock.

The Warrant will only become exercisable and the Convertible Notes will only become convertible upon receipt of certain governmental approvals. Any conversions of the Convertible Notes and prior exercises of the Warrant will reduce the dollar amount under the Warrant into which the exercise price may be divided to determine the number of shares that may be acquired upon exercise.

The exercise price under the Warrant and conversion prices under the Convertible Notes will be subject to adjustment upon the occurrence of a "Triggering Event." A "Triggering Event" will occur in the event that the proposed joint venture transactions with BGP cannot be completed by March 31, 2010, solely as a result of the occurrence of a statement, order or other indication from any relevant governmental regulatory agency that (a) the transactions would not be approved, would be opposed, objected to or sanctioned or (b) the transactions or BGP's business and operations would be required to be altered (or upon the earlier abandonment of such transactions due to any such statement, indication or order). In such event, the exercise price and conversion price per share will be adjusted (but not to an amount that exceeds \$2.80 per share) to a price per share that is equal to 75% of the lowest trading price of our common stock over a ten-consecutive-trading-day period, beginning on and inclusive of the first trading day following the public announcement of any failure to complete such transactions (or the abandonment thereof), which failure or abandonment was the result of the Triggering Event. The exercise price of the Warrant and conversion prices of the Convertible notes are also subject to certain customary anti-dilution adjustments.

The Warrant provides for certain cashless exercise rights that are exercisable by the holder of the Warrant in the event that certain governmental approvals from the People's Republic of China permitting the exercise of the Warrant for cash are not obtained.

At the same time as the closing of the joint venture transactions, all of the then-outstanding principal amounts under the Convertible Notes will be automatically converted into shares of common stock unless, at the option of the holder of the Warrant, the holder elects to exercise the Warrant in whole or in part, in lieu of the full conversion of such remaining principal amounts under the Convertible Notes.

Assuming that no adjustments occur to the exercise or conversion prices of (or the number of shares to be issued under) the Warrant or the Convertible Notes prior to closing the joint venture transactions, the Term Sheet provides that at the closing of the transactions, BGP would purchase directly from the Company a

number of shares of Common Stock at a purchase price of \$2.80 per share such that, when added to the total number of shares of Common Stock that may have been issued pursuant to conversion of the Convertible Notes and /or exercise of the Warrant, BGP (and its transferees and permitted assignees) would own, together, 19.99% of the Company's issued and outstanding shares of Common Stock (i.e. 23.8 million shares) before giving effect to the issuance of those shares.

As discussed above, the exercise price of the Warrant is subject to adjustment resulting from "Triggering Event". Following the guidance of ASC 815 "*Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock*," the Company determined that the Warrant is not considered indexed to the Company's own stock and is therefore 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 associated with the day-one fair value of the Warrant, which is being amortized over the expected term of the notes (March 31, 2010). Approximately \$6.7 million of this non-cash debt discount was recognized as interest expense during the year ended December 31, 2009. The Company also recorded a subsequent non-cash fair value adjustment of \$29.4 million, reflecting a total non-cash liability associated with the Warrant of \$44.8 million at December 31, 2009.

Secured Equipment Financing. On June 29, 2009, the Company entered into a \$20.0 million secured equipment financing transaction with ICON. Two master loan agreements were entered into with ICON in connection with this financing transaction: (i) the Company, ARAM Rentals Corporation, a Nova Scotia unlimited company ("ARC"), and ICON entered into a Canadian Master Loan and Security Agreement dated as of June 29, 2009 with regard to certain seismic equipment leased to customers by ARC, and (ii) the Company, ARAM Seismic Rentals, Inc., a Texas corporation ("ASRI"), and ICON entered into a Master Loan and Security Agreement (U.S.) dated as of June 29, 2009 with regard to certain seismic equipment leased to customers by ASRI (collectively, the "ICON Loan Agreements"). All borrowed indebtedness under the ICON Loan Agreements is scheduled to mature on July 31, 2014. The Company used the proceeds of the secured term loans for working capital and general corporate purposes.

Under the ICON Loan Agreements, ICON advanced \$12.5 million on June 29, 2009 and \$7.5 million on July 20, 2009. The indebtedness under the ICON Loan Agreements is secured by first-priority liens in (a) certain ARAM seismic rental equipment owned by ARC or ASRI located in the United States and Canada (subject to certain exceptions), and certain additional and replacement seismic equipment owned by such subsidiaries from time to time, (b) written leases or other agreements evidencing payment obligations relating to the leasing by ARC or ASRI of this equipment to their respective customers, including their related receivables, (c) the cash or cash equivalents held by such subsidiaries and (d) any proceeds thereof.

The repayment obligations of each of ARC and ASRI under the ICON Loan Agreements are guaranteed by the Company under a Guaranty dated as of June 29, 2009 (the "Guaranty"). The indebtedness under the ICON Loan Agreements and the Guaranty constitute permitted indebtedness under the Amended Credit Facility.

Under both ICON Loan Agreements, interest on the outstanding principal amount will accrue at a fixed interest rate of 15% per annum calculated monthly, and is payable monthly on the first day of each month. Principal and interest are payable, commencing on September 1, 2009, in 60 monthly installments until the maturity date, when all remaining outstanding principal and interest will be due and payable. Pursuant to the ICON Loan Agreements, ICON received a non-refundable upfront fee of \$0.3 million. In addition, ICON will receive an administrative fee equal to 0.5% of the aggregate principal amount of advances under the ICON Loan Agreements, payable at the end of each of the first four years during their terms. Inclusive of these additional fees, the effective interest rate on the secured equipment financing was 16.3% as of December 31, 2009.

Beginning on August 1, 2012, and continuing until January 31, 2014, the outstanding principal balances of the loans may be prepaid in full by giving ICON 30 days' prior written notice and paying a prepayment fee equal to 3.0% of the then-outstanding principal amount of the loans. Commencing on February 1, 2014, the loans may be prepaid in full by giving ICON 30 days' prior written notice and without payment of any prepayment penalty or fee.

The ICON Loan Agreements contain certain cross-default provisions with respect to defaults under the Company's Amended Credit Facility. Therefore, similar to the current classification of the Amended Credit Facility indebtedness, the Company has also classified this long-term indebtedness as current.

Assuming that the BGP joint venture transaction is completed as planned, the Company anticipates that the obligations under the Guaranty will be assumed by a joint venture entity, although it is also expected that the Company would remain secondarily liable on the Guaranty.

Amended and Restated Subordinated Seller Note. As part of the purchase price for the ARAM acquisition, in September 2008, the Company's acquisition subsidiary ("ION Sub") issued an unsecured senior promissory note in the original principal amount of \$35.0 million (the "Senior Seller Note") to one of the selling shareholders of ARAM, now known as Maison Mazel Ltd. On December 30, 2008, in connection with acquisition refinancing transactions that were completed on that date, the terms of the Senior Seller Note were amended and restated pursuant to an Amended and Restated Subordinated Promissory Note dated December 30, 2008 (the "Amended and Restated Subordinated Note"). The principal amount of the Amended and Restated Subordinated Note is \$35.0 million, which matures on September 17, 2013. The Company also entered into a guaranty dated December 30, 2008, whereby the Company guaranteed on a subordinated basis, ION Sub's repayment obligations under the Amended and Restated Subordinated Note. Interest on the outstanding principal amount under the Amended and Restated Subordinated Note accrues at the rate of 15% per annum, and is payable quarterly.

The terms of the Amended and Restated Subordinated Note provide that the particular covenants contained in the Amended Credit Agreement (or in any successor agreement or instrument) that restrict the Company's ability to incur additional indebtedness will be incorporated into the Amended and Restated Subordinated Note. However, under the Amended and Restated Subordinated Note, neither Maison Mazel nor any other holder of the Amended and Restated Subordinated Note have a separate right to consent to or approve any amendment or waiver of the covenant as contained in the Amended Credit Facility.

In addition, ION Sub agreed that if it incurs indebtedness under any financing that:

- qualifies as "Long Term Junior Financing" (as defined in the Amended Credit Agreement),
- results from a refinancing or replacement of the Amended Credit Facility such that the aggregate principal indebtedness (including revolving commitments) thereunder would be in excess of \$275.0 million, or
- qualifies as unsecured indebtedness for borrowed money that is evidenced by notes or debentures, has a maturity date of at least five years after the date of its issuance and results in total gross cash proceeds to the Company of not less than \$40.0 million,

then ION Sub is obligated to repay in full from the total proceeds from such financing the then-outstanding principal of and interest on the Amended and Restated Subordinated Note.

The indebtedness under the Amended and Restated Subordinated Note is subordinated to the prior payment in full of the Company's "Senior Obligations," which is defined in the Amended and Restated Subordinated Note as the principal, premium (if any), interest and other amounts that become due in connection with:

- the Company's obligations under the Amended Credit Facility,
- the Company's liabilities with respect to capital leases and obligations that qualify as a "Sale/Leaseback Agreement" (as that term is defined in the Amended Credit Agreement),
- guarantees of the indebtedness described above, and
- debentures, notes or other evidences of indebtedness issued in exchange for, or in the refinancing of, the Senior Obligations described above, or any indebtedness arising from the payment and satisfaction of any Senior Obligations by a guarantor.

In April 2009, ION Sub assigned the Amended and Restated Subordinated Note to the Company, and the related guaranty by the Company of ION Sub's repayment obligations was terminated. In connection with this assignment, ION Sub was released from its obligations under the Amended and Restated Subordinated Note.

The Amended and Restated Subordinated Seller Note contains certain cross-default provisions with respect to defaults and acceleration of indebtedness under the Company's Amended Credit Facility. Therefore, similar to the current classification of the Amended Credit Facility, the Company has also classified this long-term indebtedness as current.

Bridge Loan. On December 30, 2008, the Company and certain of its domestic subsidiaries (as guarantors) entered into the Bridge Loan Agreement with Jefferies Finance LLC ("Jefferies"). Under the Bridge Loan Agreement, the Company borrowed \$40.8 million in unsecured indebtedness (the "Bridge Loan") to refinance certain outstanding short-term indebtedness that had been loaned to the Company by Jefferies in connection with the completion of the Company's acquisition of ARAM in September 2008. The maturity date of the Bridge Loan was January 31, 2010. In June 2009, the Company repaid the entire outstanding Bridge Loan indebtedness using the net proceeds of \$38.2 million from a private placement of its common stock and \$2.6 million of operating cash. Under the Bridge Loan Agreement, the Company was required to pay to Jefferies a non-refundable initial duration fee of 3.0% of the aggregate principal amount of the Bridge Loan outstanding (if any) on June 30, 2009 and a non-refundable additional duration fee of 2.0% of the aggregate principal amount of the Bridge Loan outstanding (if any) on September 30, 2009. However, due to the prepayment in June 2009, no such duration fees were required to be paid to Jefferies. The annual interest rate on the Bridge Loan at the time of its repayment was 15%. Inclusive of these additional fees (and an upfront fee previously paid of 5.0%), the effective interest rate on the Bridge Loan was 25.3% at the time of its repayment.

Subordinated Seller Note. As part of the purchase price for the ARAM acquisition in September 2008, ION Sub also issued to Maison Mazel, Ltd., one of the selling shareholders of ARAM, an unsecured promissory note in the principal amount of \$10.0 million. In connection with the refinancing transactions that occurred in December 2008, the obligations of ION Sub and the Company under this note and a related guaranty were terminated and extinguished in exchange for the Company's assignment to Maison Mazel, Ltd. of the Company's rights to a Canadian federal income tax refund (the "Refund Claim"). However, while the indebtedness under this note was legally extinguished, the liability for financial accounting purposes could not be extinguished on the Company's consolidated balance sheet, and was included as short-term debt. In May 2009, the Company received and submitted to Maison Mazel, Ltd. the final Refund Claim. In June 2009, the remaining balance of \$0.7 million of this indebtedness was paid.

Facility Lease Obligation. In 2001, the Company sold its facilities, located in Stafford, Texas, for \$21.0 million. 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 \$4.2 million was outstanding at December 31, 2009. 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 equipment loans that are due in installments for the purpose of financing the purchase of computer equipment, in the form of capital leases expiring in various years through 2012. Interest charged under these loans range from 1.3% to 8.0% and the leases are collateralized by liens on the computer equipment. The assets and liabilities under these capital

leases are recorded at the lower of the present value of the minimum lease payments or the fair value of the assets. 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.

The following table was compiled based upon the current presentation of the Company's debt in its balance sheet and not on the original terms and maturity dates of the respective debt instruments. A summary of future principal obligations under the notes payable, long-term debt and equipment capital lease obligations are as follows (in thousands):

<u>Years Ended December 31,</u>	<u>Notes Payable and Long-Term Debt</u>	<u>Capital Lease Obligations</u>
2010	\$275,905	\$4,182
2011	610	2,425
2012	714	295
2013	832	—
2014	966	—
2015 and thereafter	535	—
Less: Unamortized non-cash debt discount	<u>(8,656)</u>	<u>—</u>
Total	<u>\$270,906</u>	<u>6,902</u>
Imputed interest		<u>(427)</u>
Net present value of equipment capital lease obligations		6,475
Current portion of equipment capital lease obligations		<u>3,884</u>
Long-term portion of equipment capital lease obligations		<u>\$2,591</u>

(13) Cumulative Convertible Preferred Stock

During 2005, the Company entered into an Agreement dated February 15, 2005 with Fletcher International, Ltd. ("Fletcher") (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 the remaining 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 as the "Series D Preferred Stock." Fletcher remains the sole holder of all of the Company's outstanding shares of Series D Preferred Stock.

Until November 2008, all shares of Series D Preferred Stock had substantially similar terms, except for their conversion prices, which were as follows:

- The conversion price for the Series D-1 Preferred Stock was \$7.869 per share;
- The conversion price for the Series D-2 Preferred Stock was \$16.0429 per share; and
- The conversion price for the Series D-3 Preferred Stock was \$14.7981 per share.

The terms of the Series D Preferred Stock had provided that the shares could be redeemed for cash or in shares of common stock, calculated based upon the prevailing market price of the Company's common stock at the time of redemption. Dividends on the shares of Series D Preferred Stock could be payable, at the

Company's election, in cash or in shares of the Company's common stock. To date, all dividends paid on the Series D Preferred Stock have been paid in cash.

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 and elect to either:

- satisfy all future redemption obligations by distributing only cash, or a combination of cash and common stock, or
- reset the conversion prices of all of the outstanding shares of Series D Preferred Stock to the Minimum Price, in which event Fletcher would have no further rights to redeem its shares of Series D Preferred Stock.

In addition, the Fletcher Agreement provided that upon the Company's delivery of the Reset Notice, the Company would thereafter be required to pay all future dividends on shares of Series D Preferred Stock in cash.

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 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 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 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.

As a result of these elections and notices:

- Fletcher is no longer permitted to redeem its shares of Series D Preferred Stock,
- the Company is required to pay all future dividends on the Series D Preferred Stock in cash and may not pay such dividends in shares of its common stock, and
- the Maximum Number of shares of common stock into which the shares of Series D Preferred Stock may be converted is 9,669,434 shares.

The conversion prices and number of shares of common stock to be acquired upon conversion are also subject to customary anti-dilution adjustments.

The accounting impact as a result of these elections and notices were as follows:

- Beneficial conversion charge — The reset of the conversion prices triggered a contingent beneficial conversion feature. Following the guidance of ASC 470-20, "*Application of Issue No. 98-5 to Certain Convertible Instruments*," the Company recorded a beneficial conversion charge of \$68.8 million during the year ended December 31, 2008. This charge was calculated at its intrinsic value at the original commitment date. The total charge was limited to the amount of proceeds allocated to the convertible instruments.
- Classification of preferred stock — The Company originally classified the preferred stock outside of stockholders' equity on the balance sheet below total liabilities. However, with the termination of the redemption rights, there are no other provisions that could require cash redemption. Therefore, in the fourth quarter of 2008, the Company reclassified the preferred stock to stockholders' equity.

- Elimination of rights of redemption — The outstanding shares of the Series D-2 Preferred Stock and the Series D-3 Preferred Stock were subject to the accounting guidance contained in ASC Topic 815-10: “*Determining the Nature of a Host Contract Related to a Hybrid Financial Instrument Issued in the Form of a Share under FASB Statement No. 133*” (ASC 815-10). ASC 815-10 became effective on a prospective basis on July 1, 2007, and the additional guidance and clarification of ASC 815-10 applies to transactions occurring after July 1, 2007. Under ASC 815-10, the redemption features of the Series D-2 Preferred Stock and the Series D-3 Preferred Stock were embedded derivatives that were required to be bifurcated and accounted for separately at their fair value. The fair value of the redemption features had been classified as a liability on the balance sheet of the Company and, on a quarterly basis, changes in the fair value of these redemption features had been reflected in the income statement below income from operations. However, after the resetting of the conversion prices, Fletcher has no further rights to redeem its shares. Therefore, the redemption obligation was eliminated, resulting in a positive fair value adjustment of \$1.2 million for the year ended December 31, 2008.

On September 15, 2009, Fletcher delivered a second notice to the Company that purported 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 gave Fletcher the right to issue only one notice to increase the Maximum Number (which Fletcher had exercised in November 2008). 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 is permitted to deliver only one notice to increase the Maximum Number and that its purported second notice is legally invalid. See further discussion of this action and other legal actions between Fletcher and the Company at Note 19 “— *Legal Matters.*”

(14) 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 their 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, 2009, there were 7,766,188 shares issued or committed for issuance under outstanding options under the Company’s stock option plans, and 410,873 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 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:

	<u>Option Price Per Share</u>	<u>Outstanding</u>	<u>Vested</u>	<u>Available for Grant</u>
January 1, 2007	\$1.73-\$30.00	6,824,648	4,335,587	696,286
Increase in shares authorized	—	—	—	2,400,000
Granted	13.52-16.03	1,381,200	—	(1,381,200)
Vested	—	—	968,250	—
Exercised	1.73-12.45	(1,036,794)	(1,036,794)	—
Cancelled/forfeited	3.35-30.00	(329,413)	(66,601)	279,544
Restricted stock granted out of option plans	—	—	—	(473,708)
Restricted stock forfeited or cancelled for employee minimum income taxes and returned to the plans	—	—	—	90,122
December 31, 2007	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	<u>7,766,188</u>	<u>5,042,682</u>	<u>410,873</u>

Stock options outstanding at December 31, 2009 are summarized as follows:

<u>Option Price Per Share</u>	<u>Outstanding</u>	<u>Weighted Average Exercise Price of Outstanding Options</u>	<u>Weighted Average Remaining Contract Life</u>	<u>Vested</u>	<u>Weighted Average Exercise Price of Vested Options</u>
\$1.07 - \$1.73	33,522	\$ 1.34	5.5	13,522	\$ 1.73
2.49 - 3.80	1,892,850	\$ 2.97	7.9	669,288	\$ 2.93
3.85 - 5.81	844,441	\$ 5.31	7.1	326,691	\$ 5.10
5.94 - 9.01	2,350,375	\$ 6.60	4.1	2,326,625	\$ 6.58
9.08 - 14.03	1,326,350	\$10.36	5.7	1,081,353	\$10.27
14.10 - 16.39	1,318,650	\$15.17	8.1	625,203	\$15.29
Totals	<u>7,766,188</u>	\$ 7.65	6.3	<u>5,042,682</u>	\$ 7.86

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, 2009	7,893,275	\$ 8.11		7.1	
Options granted	635,750	\$ 4.90	\$3.17		
Options exercised	(9,837)	\$ 2.17			
Options cancelled	(186,300)	\$10.04			
Options forfeited	<u>(566,700)</u>	\$10.28			
Total outstanding at December 31, 2009	<u>7,766,188</u>	\$ 7.65		6.3	\$6,263
Options exercisable and vested at December 31, 2009	<u>5,042,682</u>	\$ 7.86		5.0	\$2,327

The total intrinsic value of options exercised during the twelve months ended December 31, 2009, 2008 and 2007 was less than \$0.1 million, and approximately \$4.8 million and \$13.5 million, respectively. Cash received from option exercises under all share-based payment arrangements for the twelve months ended December 31, 2009 and 2008 was less than \$0.1 million and approximately \$6.3 million, respectively. The weighted average grant date fair value for stock option awards granted during the twelve months ended December 31, 2009, 2008 and 2007 was \$3.17, \$3.02, and \$7.55 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, 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. Except for these restrictions, the grantee of an award of shares of restricted stock has all the rights of a common stockholder, including the right to vote such shares.

The status of the Company's restricted stock and restricted stock unit awards for the year ended December 31, 2009 is as follows:

	<u>Number of Shares/Units</u>
Total nonvested at January 1, 2009	876,542
Granted	574,874
Vested	(531,043)
Forfeited	<u>(142,368)</u>
Total nonvested at December 31, 2009	<u>778,005</u>

At December 31, 2009, the intrinsic value of restricted stock and restricted stock unit awards was approximately \$4.6 million. The weighted average grant date fair value for restricted stock and restricted stock unit awards granted during the twelve months ended December 31, 2009, 2008 and 2007 was \$4.79, \$5.79 and \$14.97 per share. The total fair value of shares vested during the twelve months ended December 31, 2009, 2008 and 2007 was \$4.7 million, \$5.3 million, and \$6.5 million, respectively.

Employee Stock Purchase Plan

In April 1997, the Company adopted an Employee Stock Purchase Plan (ESPP), which allowed all eligible employees to authorize payroll deductions at a rate of 1% to 15% of base compensation for the

purchase of the Company's common stock. The purchase price of the common stock was 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 was six months and commenced on January 1 and July 1 of each year. The ESPP was considered a compensatory plan under ASC 718. The Company recorded compensation expense of approximately \$0.4 million during the years ended December 31, 2008 and 2007, respectively. The expense represented 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. There were 109,943 and 113,763 shares purchased by employees during the years ended December 31, 2008 and 2007, respectively. Effective December 31, 2008, the ESPP was terminated. While the plan was terminated on December 31, 2008, the shares purchased (109,650) on January 1, 2009 were recorded and included in the financial statements as of December 31, 2009

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.

In December 2008, the Company granted to three individuals a total of 575,000 SAR awards with a weighted average exercise price of \$6.24. The Company recorded \$0.8 million and \$0.2 million, respectively, of share-based compensation expense during the twelve months ended December 31, 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		
	2009	2008	2007
Risk-free interest rates	1.6% – 2.4%	1.5% – 3.4%	3.4% – 4.9%
Expected lives (in years).	3.6 – 5.5	4.7 – 5.0	4.5 – 5.0
Expected dividend yield	0%	0%	0%
Expected volatility	75.0% – 91.9%	44.7% – 83.2%	45.0% – 53.3%

The computation of expected volatility during the twelve months ended December 31, 2009, 2008 and 2007 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 2009, 2008 and 2007 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.

(15) Segment and Geographic Information

In order to allow for increased visibility and accountability of costs and more focused customer service and product development, the Company evaluates and reviews results based on four segments: three of these

segments — Land Imaging Systems, Marine Imaging Systems and Data Management Solutions — make up the ION Systems Division, and the fourth segment is the ION Solutions Division. The Company's land sensors business unit, which specializes in the design and manufacture of geophones, and its land imaging systems business unit have been aggregated to form the Land Imaging Systems segment. The Company measures segment operating results based on income from operations.

A summary of segment information for the years ended December 31, 2009, 2008 and 2007, is as follows (in thousands):

	Years Ended December 31,		
	2009	2008	2007
Net revenues:			
ION Systems Division:			
Land Imaging Systems	\$103,038	\$ 200,493	\$325,037
Marine Imaging Systems	103,024	182,710	177,685
Data Management Solutions	33,733	37,240	37,660
Total ION Systems Division	239,795	420,443	540,382
ION Solutions Division	179,986	259,080	172,729
Total	<u>\$419,781</u>	<u>\$ 679,523</u>	<u>\$713,111</u>
Income (loss) from operations:			
ION Systems Division:			
Land Imaging Systems	\$ (39,126)	\$ (13,662)	\$ 28,681
Marine Imaging Systems	29,632	52,624	44,727
Data Management Solutions	19,970	22,298	17,290
Total ION Systems Division	10,476	61,260	90,698
ION Solutions Division	27,747	40,534	21,646
Corporate and other	(58,395)	(62,334)	(48,450)
Impairment of goodwill and intangible assets	(38,044)	(252,283)	—
Total	<u>\$ (58,216)</u>	<u>\$ (212,823)</u>	<u>\$ 63,894</u>
Depreciation and amortization (including multi-client data library):			
ION Systems Division:			
Land Imaging Systems	\$ 26,204	\$ 9,094	\$ 4,036
Marine Imaging Systems	1,456	1,655	1,383
Data Management Solutions	2,665	3,145	3,329
Total ION Systems Division	30,325	13,894	8,748
ION Solutions Division	62,930	96,995	53,220
Corporate and other	3,105	2,695	2,461
Total	<u>\$ 96,360</u>	<u>\$ 113,584</u>	<u>\$ 64,429</u>
December 31,			
2009 2008			
Total assets:			
ION Systems Division:			
Land Imaging Systems	\$316,895	\$398,473	
Marine Imaging Systems	107,883	146,877	
Data Management Solutions	40,133	41,293	
Total ION Systems Division	464,911	586,643	
ION Solutions Division	221,596	222,206	
Corporate and other	61,679	52,582	
Total	<u>\$748,186</u>	<u>\$861,431</u>	

	December 31,	
	2009	2008
Total assets by geographic area:		
North America	\$520,454	\$644,165
Europe	56,413	63,560
Middle East	111,056	113,324
Latin America	50,374	34,608
Other	9,889	5,774
Total	<u>\$748,186</u>	<u>\$861,431</u>

The Company's results of operations and financial condition have been affected by the acquisition of ARAM in September 2008 and impairments of assets during the periods presented, which may affect the comparability of the financial information. 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 all facilities that are jointly utilized by segments. 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,		
	2009	2008	2007
North America	\$152,995	\$272,567	\$267,673
Europe	92,760	202,170	179,064
Asia Pacific	67,199	57,470	131,683
Commonwealth of Independent States (CIS)	4,739	30,051	52,247
Africa	25,435	31,693	37,116
Middle East	42,403	32,872	29,311
Latin America	34,250	52,700	16,017
Total	<u>\$419,781</u>	<u>\$679,523</u>	<u>\$713,111</u>

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.

(16) Income Taxes

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

	Years Ended December 31,		
	2009	2008	2007
Domestic	\$ (91,646)	\$ (82,811)	\$36,453
Foreign	(38,398)	(137,096)	19,014
Total	<u>\$(130,044)</u>	<u>\$(219,907)</u>	<u>\$55,467</u>

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

	Years Ended December 31,		
	2009	2008	2007
Current:			
Federal	\$ 526	\$ 58	\$ 2,499
State and local	74	208	(222)
Foreign	17,565	18,414	7,586
Deferred (U.S. and foreign)	<u>(38,150)</u>	<u>(17,549)</u>	<u>2,960</u>
Total income tax (benefit) expense	<u><u>\$(19,985)</u></u>	<u><u>\$ 1,131</u></u>	<u><u>\$12,823</u></u>

A reconciliation of the expected income tax expense on income (loss) before income taxes using the statutory federal income tax rate of 35% for the years ended December 31, 2009, 2008 and 2007 to income tax expense is as follows (in thousands):

	Years Ended December 31,		
	2009	2008	2007
Expected income tax expense at 35%	\$(45,515)	\$(76,967)	\$ 19,414
Alternate minimum tax	526	58	2,499
Foreign taxes (tax rate differential and foreign tax differences) . .	4,288	2,367	29,865
Nondeductible financing	12,646	—	—
Nondeductible goodwill	—	84,756	—
State and local taxes	74	269	(282)
Deferred tax asset valuation allowance	6,531	(9,613)	(39,266)
Nondeductible expenses	<u>1,465</u>	<u>261</u>	<u>593</u>
Total income (benefit) tax expense	<u><u>\$(19,985)</u></u>	<u><u>\$ 1,131</u></u>	<u><u>\$ 12,823</u></u>

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

	December 31,	
	2009	2008
Current deferred:		
Deferred income tax assets:		
Accrued expenses	\$ 5,428	\$ 8,812
Allowance accounts	10,965	9,557
Inventory	(257)	(103)
Total current deferred income tax asset	<u>16,136</u>	<u>18,266</u>
Valuation allowance	<u>(5,405)</u>	<u>(4,401)</u>
Net current deferred income tax asset	<u>10,731</u>	<u>13,865</u>
Deferred income tax liabilities:		
Unbilled receivables	<u>(4,945)</u>	<u>(9,877)</u>
Net current deferred income tax asset (liability)	<u><u>\$ 5,786</u></u>	<u><u>\$ 3,988</u></u>

	<u>December 31,</u>	
	<u>2009</u>	<u>2008</u>
Non-current deferred:		
Deferred income tax assets:		
Net operating loss carryforward	\$ 26,268	\$ 4,632
Basis in research and development	26,087	26,674
Basis in property, plant, equipment and seismic rental equipment	3,492	2,122
Tax credit carryforwards and other	<u>11,836</u>	<u>9,533</u>
Total non-current deferred income tax asset	67,683	42,961
Valuation allowance	<u>(27,721)</u>	<u>(24,697)</u>
Net non-current deferred income tax asset	<u>39,962</u>	<u>18,264</u>
Deferred income tax liabilities:		
Basis in identified intangibles	<u>(14,802)</u>	<u>(29,220)</u>
Net non-current deferred income tax asset (liability)	<u>\$ 25,160</u>	<u>\$(10,956)</u>

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. 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 until there is sufficient evidence to warrant reversal. In the event the Company's expectations of future operating results or the availability of certain tax planning strategies 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, 2009, the Company had net operating loss carry-forwards of approximately \$85.4 million, the majority of which expires beyond 2027. In 2008, approximately \$3.5 million of tax benefits related to acquired net operating losses were recorded as reductions of goodwill of the acquired companies.

As a result of the implementation of ASC Topic 740-10, "Accounting for Uncertainty in Income Taxes — an Interpretation of FASB Statement No. 109" (ASC 740-10) adopted on January 1, 2007, the Company recorded no adjustment to beginning retained earnings because there were no unrecognized tax benefits. As of December 31, 2009, 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.

The Company's U.S. federal tax returns for 2005 and subsequent years remain subject to examination by tax authorities. The Company is no longer subject to IRS examination for periods prior to 2005, although carryforward attributes that were generated prior to 2005 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 2006 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 \$112.0 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.

During 2004, the Company recorded \$52.9 million and \$21.4 million as identifiable intangible assets related to its purchase of GXT and Concept Systems, respectively. During 2008, the Company recorded \$101.8 million as identifiable intangible assets related to its purchase of ARAM Systems. At December 31, 2008 and March 31, 2009, the Company recorded impairment charges related to these assets of \$10.1 million and \$38.0 million, respectively. These intangible assets are not deductible for federal income taxes. The deferred tax liability related to the GXT intangibles is included in the December 31, 2009 and 2008 deferred tax balances. The deferred tax liability related to the Concept Systems intangibles totaled \$1.4 million and

\$1.9 million at December 31, 2009 and 2008, respectively. The deferred tax liability related to the ARAM intangibles totaled \$9.7 million and \$21.9 million, respectively, at December 31, 2009 and 2008.

(17) Operating Leases

Lessee. The Company leases certain equipment, offices, and warehouse space under non-cancelable operating leases. Rental expense was \$14.3 million, \$14.8 million, and \$11.7 million for the years ended December 31, 2009, 2008 and 2007, respectively.

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

<u>Years Ended December 31,</u>	
2010	\$12,603
2011	10,075
2012	8,394
2013	4,608
2014	<u>3,410</u>
Total	<u>\$39,090</u>

(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. However, in April 2009, the Company suspended its match to employee’s 401(k) plan contributions. Company contributions to the plans were \$0.7 million, \$1.6 million, and \$1.5 million, during the years ended December 31, 2009, 2008 and 2007, respectively.

Supplemental executive retirement plan. The Company previously had 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.

(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 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 asserted that WesternGeco misappropriated the Company's proprietary technology and breached a confidentiality agreement between the parties by using the Company's technology in its patents and products and 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.

Fletcher. During 2009, three lawsuits were filed in Delaware involving Fletcher International, Ltd. ("Fletcher"), the holder of shares of the Series D Preferred Stock.

- On July 10, 2009, Fletcher filed a "books and records" proceeding in the Delaware Court of Chancery under Section 220(b) of the Delaware General Corporation Law, styled *Fletcher International, Ltd. v. ION Geophysical Corporation f/k/a Input/Output, Inc.* Fletcher's complaint asked the Court to require the Company to produce for its inspection a broad range of the Company's documents and records related to the ARAM acquisition and other matters. Section 220(b) allows stockholders of a Delaware corporation to make a demand on the corporation for access to certain books and records of the corporation, provided that such demand is made with appropriate specificity and is made for a proper purpose. The Company responded by asserting that Fletcher had not requested the information with appropriate specificity or for a proper purpose as required by law. After a hearing on December 23, 2009, the court determined that most of Fletcher's stated purposes for requesting the information were not valid or did not constitute "proper" purposes and issued a ruling denying in significant part the inspection sought by Fletcher.
- 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 purported to deliver a second notice to the Company that purported 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 gave Fletcher the right to issue only one notice to increase the Maximum Number (which Fletcher had exercised in November 2008). 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 is permitted to deliver only one notice to increase the Maximum Number and that its purported second notice is legally invalid.
- On November 25, 2009, Fletcher filed a lawsuit against the Company and each 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 alleges, among other things, that the Company violated Fletcher's consent rights by ION International S.à r.l., an indirect wholly-owned subsidiary of ION Geophysical Corporation, issuing a 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 duty to the company by allowing ION International S.à r.l. to issue the note without Fletcher's consent. Fletcher is seeking a court order requiring ION International S.à r.l. to repay the \$10 million advanced to ION International S.à r.l. under the bridge loan and unspecified monetary damages. In the lawsuit, Fletcher is not claiming that it had a right to consent to any note issued by ION Geophysical Corporation, including the issuance by ION Geophysical Corporation of a \$30 million promissory note

to the Bank of China on October 27, 2009, as part of the bridge loan. The Company believes that Fletcher did not have the right to consent to the issuance of the bridge loan note by ION International S.à r.l. or any other promissory note and that the claims asserted by Fletcher in the lawsuit are without merit. The Company further believes 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 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 two-week 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 \$21.7 million in compensatory damages. On October 13, 2009, the presiding trial judge signed and entered the judgment, awarding the Company the amount of the jury verdict. Under applicable law, the Company also entitled to receive legal interest from the date of filing the lawsuit, plus the Company's attorneys' fees and costs. Through December 22, 2009, accrued legal interest totaled \$11.2 million, and interest will continue to accrue at the statutory annual rate of 8.5% until paid. Including the verdict amount and accrued interest, the total amount owed under the judgment as of December 22, 2009 was \$32.9 million plus the Company's attorneys' fees and costs. The judgment is currently on appeal. The Company has not accrued any amounts related to this gain contingency as of December 31, 2009.

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 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. The Company's products that use the VectorSeis technology include the Company's 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. The Company has asked the court to issue a permanent injunction to prohibit Sercel from making, using, selling, offering for sale or importing any infringing products into the United States. The Company has not accrued any amounts related to this gain contingency as of December 31, 2009.

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

During 2009, the Company continued its restructuring program that was initiated in the fourth quarter of 2008. Under this program, the Company has reduced its employee headcount by a total of approximately 26% (or 384 positions). When terminated independent contractors are included, the Company has reduced its headcount by a total of 489 positions, or 27%. At December 31, 2008, the Company had accrued \$1.8 million related to severance costs. In 2009, the Company accrued an additional \$3.1 million related to severance costs

and made cash payments to employees of \$4.1 million, resulting in an accrual as of December 31, 2009 of \$0.8 million. Of the amount expensed for the year ended December 31, 2009, approximately \$2.1 million was included in operating expenses, with the remaining \$1.0 million included in cost of sales. During 2010, the Company will continue to evaluate its staffing needs and may reduce its employee headcount further as necessary.

In April 2009, the Company initiated a salary reduction program that reduced employee base salaries. The salary reductions ranged from 12% for the Company's chief executive officer, chief operating officer and chief financial officer, 10% for all other executives and senior management, and 5% for most other employees. The Company's Board of Directors also elected to implement a 15% reduction in director fees. In addition to the salary reduction program, the Company suspended its match to employee 401(k) plan contributions.

Following the October 23, 2009 announcement of the Company and BGP entering into the Term Sheet, which provides for, among other things, the formation of a joint venture between the Company and BGP involving the Company's land-based seismic data acquisition equipment business (see further discussion at Note 2 "*— Term Sheet with BGP and Bridge Financing Transactions*"), the Company's management decided to reinstate all employees salaries and director fees on a prospective basis.

(21) Selected Quarterly Information — (Unaudited)

A summary of selected quarterly information is as follows (in thousands, except per share amounts):

Year Ended December 31, 2009	Three Months Ended			
	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, including amortization of a non-cash debt discount	(7,417)	(6,861)	(6,380)	(15,013)
Fair value adjustment of the warrant	—	—	—	(29,401)
Impairment of cost method investment	—	—	—	(4,454)
Interest and other income	462	(5,869)	2,120	985
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	<u>\$ (38,443)</u>	<u>\$ (16,606)</u>	<u>\$ (6,825)</u>	<u>\$ (51,685)</u>
Net income (loss) per basic and diluted share . .	\$ (0.39)	\$ (0.16)	\$ (0.06)	\$ (0.44)

Year Ended December 31, 2008	Three Months Ended			
	March 31	June 30	September 30	December 31
Product revenues	\$ 93,034	\$104,360	\$140,332	\$ 79,785
Service revenues	47,125	76,305	78,197	60,385
Total net revenues	140,159	180,665	218,529	140,170
Gross profit	48,394	58,021	72,621	28,712
Impairment of goodwill and intangible assets	—	—	—	252,283
Income (loss) from operations	10,295	19,736	31,574	(274,428)
Interest expense	(487)	(652)	(1,592)	(9,992)
Interest and other income	789	793	(364)	4,421
Income tax expense (benefit)	2,059	3,524	3,760	(8,212)
Preferred stock dividends	910	908	925	1,146
Preferred stock beneficial conversion charge	—	—	—	68,786
Net income (loss) applicable to common shares	<u>\$ 7,628</u>	<u>\$ 15,445</u>	<u>\$ 24,933</u>	<u>\$(341,719)</u>
Net income (loss) per basic share	\$ 0.08	\$ 0.16	\$ 0.26	\$ (3.43)
Net income (loss) per diluted share	\$ 0.08	\$ 0.16	\$ 0.25	\$ (3.43)

(22) Related Parties

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 8.1% of the Company's outstanding common stock as of February 22, 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 2009, the Company paid Laitram a total of approximately \$4.0 million, which consisted of approximately \$3.2 million for manufacturing services, \$0.7 million for rent and other pass-through third party facilities charges, and \$0.1 million for other services. For the 2008 and 2007 fiscal years, the Company paid Laitram a total of approximately \$4.3 million and \$4.9 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.

SCHEDULE II

**ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES
VALUATION AND QUALIFYING ACCOUNTS**

<u>Year Ended December 31, 2007</u>	<u>Balance at Beginning of Year</u>	<u>Charged (Credited) to Costs and Expenses</u>	<u>Deductions</u>	<u>Balance at End of Year</u>
		(In thousands)		
Allowances for doubtful accounts	\$ 2,801	\$ 437	\$ (563)	\$ 2,675
Allowances for doubtful notes	4,530	—	(1,179)	3,351
Warranty	6,255	13,074	(5,890)	13,439
Valuation allowance on deferred tax assets	76,324	(39,266)	355	37,413

<u>Year Ended December 31, 2008</u>	<u>Balance at Beginning of Year</u>	<u>Acquired Reserves During the Period</u>	<u>Charged (Credited) to Costs and Expenses</u>	<u>Deductions</u>	<u>Balance at End of Year</u>
			(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

<u>Year Ended December 31, 2009</u>	<u>Balance at Beginning of Year</u>	<u>Charged (Credited) to Costs and Expenses</u>	<u>Deductions</u>	<u>Balance at End of Year</u>
		(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

[CORPORATE INFORMATION]

→ Executive Officers

Robert P. (Bob) Peebler
Chief Executive Officer

R. Brian Hanson
Executive Vice President and
Chief Financial Officer

Chris M. Friedemann
Senior Vice President,
Corporate Marketing

David L. Roland
Senior Vice President, General Counsel
and Corporate Secretary

Michael L. Morrison
Vice President and Corporate Controller

→ Board of Directors

James M. (Jay) Lapeyre, Jr.
Chairman of the Board
President, Laitram L.L.C.

Bruce S. Appelbaum, PhD
Chairman
Mosaic Natural Resources, Ltd.

Theodore H. Elliott, Jr.
Chairman, Prime Capital Management Co., Inc.

Guo Yueliang
Vice President
China National Petroleum Corporation

G. Thomas Marsh
Retired Executive Vice President,
Lockheed Martin Space Systems Company

Franklin Myers
Operating Advisor
Paine & Partners, LLC

S. James Nelson, Jr.
Retired Vice Chairman, Cal Dive International, Inc.
(now Helix Energy Solutions Group, Inc.)

Robert P. (Bob) Peebler
Chief Executive Officer
ION Geophysical Corporation

John N. Seitz
Founder and Vice Chairman of the Board
Endeavour International Corporation

Nicholas G. Vlahakis
Retired Executive Vice President and Chief
Operating Officer, Alliant Techsystems, Inc.

→ Investor Relations

Shareholders, securities analysts, portfolio managers, or brokers seeking information about the Company are welcome to call Investor Relations at +1.281.933.3339. If you prefer, you may send your requests to the Investor Relations e-mail address: ir@iongeo.com. Recent news releases, financial information, and SEC filings can be downloaded from the Company's website at iongeo.com.

→ Annual Report on Form 10-K

ION Geophysical Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2009, and although furnished as an integral part of this Annual Report to Shareholders, is also available upon request without charge from:

ION Geophysical Corporation
Attn: Investor Relations
2105 CityWest Blvd., Suite 400
Houston, Texas 77042-2839

→ Annual Meeting

The Annual Meeting of Stockholders of ION Geophysical Corporation will be held at the offices of the Company located at 2105 CityWest Blvd., Suite 900, Houston, Texas, on May 26, 2010, at 10:30 AM CST.

→ Stock Transfer Agent

Computershare Investor Service
2 North LaSalle St.
Chicago, Illinois 60602

→ Independent Auditors

Ernst & Young LLP
5 Houston Center
Suite 1200
1401 McKinney St.
Houston, Texas 77010
713.750.1500

→ CEO and CFO Certificates

The Company has included as Exhibit 31 to its Annual Report on Form 10-K for the fiscal year ended December 31, 2009, filed with the Securities and Exchange Commission, certificates of the Chief Executive Officer and Chief Financial Officer of the Company certifying the quality of the Company's public disclosure and the Company has submitted to the New York Stock Exchange a certificate of the Chief Executive Officer of the Company certifying that he is not aware of any violation by the Company of the New York Stock Exchange corporate governance listing standards.

→ Statement for Purpose of Forward-Looking Statements

The information included herein contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements include statements concerning expected future financial positions, segment sales, results of operations, cash flows, funds from operations, financing plans, gross margins, business strategy, budgets, projected costs and expenses, capital expenditures, competitive position, product offerings, technology developments, access to capital and growth opportunities, future cash needs and future sources of cash, including availability under the Company's revolving line of credit facility, future compliance with debt financial covenants, future sales and market growth, benefits to be obtained by the Company from the joint venture with BGP, and other statements that are not of historical fact. Actual results may vary materially from those described in these forward-looking statements. All forward-looking statements reflect numerous assumptions and involve a number of risks and uncertainties. These risks and uncertainties include audit adjustments and other modifications to the Company's financial statements not currently foreseen, unanticipated delays in the timing and development of the Company's products and services and market acceptance of the Company's new and revised product offerings; risks associated with the economic downturn and the volatile credit environment; risks associated with the integration of the Company's and BGP's businesses contributed to the joint venture and operations of the joint venture; risks associated with the Company's level of indebtedness, including compliance with debt covenants; risks associated with competitors' product offerings and pricing pressures resulting therefrom; the relatively small number of customers that the Company currently relies upon; the fact that a significant portion of the Company's revenues is derived from foreign sales; risks that sources of capital may not prove adequate; risks regarding the Company's inability to produce products to preserve and increase market share; risks related to collection of receivables; and risks related to technological and marketplace changes affecting the Company's product line. Additional risk factors, which could not affect actual results, are disclosed by the Company from time to time in its filings with the Securities and Exchange Commission, including its Annual Report on Form 10-K for the year ended December 31, 2009. The information contained herein includes references to trademarks, service marks and registered marks of ION Geophysical Corporation and our subsidiaries as indicated. Except where stated otherwise or unless the context otherwise requires, the terms "VectorSeis," "VectorSeis System Four," "System Four," "FireFly," "ARIES," "ARIES II," "DigiSHOT," "XVib," "DigiCOURSE," "GATOR," "SPECTRA," "Orca," "Scorpion," "SPRINT," and "REFLEX" refer to our VECTORSEIS®, VECTORSEIS SYSTEM FOUR®, SYSTEM FOUR®, FIREFLY®, ARIES®, ARIES II®, DIGISHOT®, XVIB®, DIGICOURSE®, GATOR®, SPECTRA®, ORCA®, SCORPION®, SPRINT®, and REFLEX® registered marks, and the terms "AZIM," "ArcticSPAN," "BasinSPAN," "BightSPAN," "BrazilSPAN," "[Intelligent Acquisition]," "True Digital," "DigiSTREAMER," "SM-24," "AHV-IV," "Vib Pro," "Shot Pro," and "DigiFIN," refer to our AZIM™, ArcticSPAN™, BasinSPAN™, BightSPAN™, BrazilSPAN™, [INTELLIGENT ACQUISITION]™, True Digital™, DigiSTREAMER™, SM-24™, AHV-IV™, Vib Pro™, Shot Pro™, and DigiFIN™, trademarks and service marks.



ionTM

[CHARGED WITH INNOVATION]

2105 CityWest Blvd., Suite 400
Houston, TX 77042-2839 USA

P 281.933.3339
F 281.879.3626

iongeo.com