

ION GEOPHYSICAL CORP

Form S-3ASR

December 19, 2008

Table of Contents

As filed with the Securities and Exchange Commission on December 19, 2008.

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**Form S-3
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933**

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
(281) 933-3339**

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

David L. Roland, Esq.
Senior Vice President, General Counsel and Corporate Secretary
ION Geophysical Corporation
2105 CityWest Blvd.
Suite 400
Houston, Texas 77042-2839
(281) 933-3339

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:
Marc H. Folladori
Mayer Brown LLP
700 Louisiana, Suite 3400
Houston, Texas 77002-2730
(713) 238-3000

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective, as determined by market conditions and other factors.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller Reporting Company
 (Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered*	Amount to be Registered/Proposed Maximum Offering Price Per Unit/Proposed Maximum Aggregate Offering Price/Amount of Registration Fee (1)(2)
Common Stock, \$0.01 par value	
Preferred Stock, \$0.01 par value	
Debt Securities	
Depository Shares representing Preferred Stock	
Warrants	
Units	

* Additional securities (including securities to be issued by additional registrants) may be added by post-effective amendments pursuant to Rule 413.

(1) An indeterminate amount of securities to be offered at indeterminate prices is being registered pursuant to this registration

statement. The registrant is deferring payment of the registration fee pursuant to Rule 456(b) and is omitting this information in reliance on Rule 456(b) and Rule 457(r).

- (2) Also includes an indeterminate number of shares of common stock or preferred stock as may be issued upon conversion, exchange or settlement, as the case may be, for any debt securities or preferred stock that provide for conversion, exchange or settlement, as the case may be, into preferred stock or common stock registered hereby. Separate consideration may or may not be received for any securities that are issued upon conversion of or in exchange or settlement for those securities.

Table of Contents

PROSPECTUS

ION Geophysical Corporation

The following are types of securities that may be offered and sold by ION Geophysical Corporation or by selling security holders under this prospectus from time to time:

Common stock	Depository shares
Preferred stock	Warrants
Debt securities	Units

The securities may be offered by us or by selling security holders in amounts, at prices and on terms determined at the time of the offering. The securities may be sold directly to you, through agents, or through underwriters and dealers. If agents, underwriters or dealers are used to sell the securities, we will name them and describe their compensation in a prospectus supplement. You should read this prospectus and any prospectus supplement carefully before you invest.

We will describe in a prospectus supplement, which must accompany this prospectus, the securities we are offering and selling, as well as the specific terms of the securities. Those terms may include:

Maturity	Redemption terms	Liquidation amount
Interest rate	Listing on a securities exchange	Subsidiary guarantees
Currency of payments	Amount payable at maturity	Sinking fund terms
Dividends	Conversion or exchange rights	

Our common stock is listed on the New York Stock Exchange under the symbol IO. On December 18, 2008, the last reported sale price of our common stock on the New York Stock Exchange was \$2.92 per share. Unless otherwise indicated in a prospectus supplement, the other securities described in this prospectus will not be listed on a national securities exchange.

You should read carefully the information included or incorporated by reference in this prospectus and any applicable prospectus supplement, including the information under the heading Risk Factors, for a discussion of factors you should consider before deciding to invest in any of our securities offered by this prospectus. See Risk Factors on page 5.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is December 19, 2008

You should rely only on the information contained in or incorporated by reference in this prospectus, in any supplement hereto or in any related free-writing prospectus. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information contained in or incorporated by reference in this prospectus is accurate as of any date other than the date on the front of this prospectus. The terms ION, the company, we, our, ours and us ION Geophysical Corporation and its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

TABLE OF CONTENTS

	Page
<u>Summary</u>	3
<u>Where You Can Find More Information</u>	4
<u>Risk Factors</u>	5
<u>Caution Concerning Forward-Looking Statements</u>	5
<u>Use of Proceeds</u>	8
<u>Ratios of Earnings to Fixed Charges and Earnings to Combined Fixed Charges and Preferred Stock</u>	8
<u>Dividends</u>	8
<u>Description of Capital Stock</u>	13
<u>Description of Debt Securities</u>	22
<u>Description of the Depositary Shares</u>	25
<u>Description of Warrants</u>	25
<u>Description of Units</u>	25
<u>Forms of Securities</u>	26
<u>Plan of Distribution</u>	27
<u>Legal Matters</u>	27
<u>Experts</u>	27
<u>EX-4.3</u>	
<u>EX-4.5</u>	
<u>EX-5.1</u>	
<u>EX-12.1</u>	
<u>EX-23.1</u>	
<u>EX-23.2</u>	

Table of Contents

SUMMARY
The Company

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 companies and seismic contractors to generate high-resolution images of the earth's subsurface for exploration, exploitation and production operations. Our products are designed to create better analyses of the earth's subsurface, which enables oil and gas companies to make improved drilling and production decisions. Our products and services include land and marine seismic data acquisition equipment, navigation and data management software products, survey design planning services, data processing interpretation services and seismic data libraries. 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 are able to serve oil and gas companies in all major energy producing regions of the world from strategically located offices in 22 cities on five continents.

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 produce 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, such as time-lapse seismic images referred to as 4D or four-dimensional surveys in which the fourth dimension is time.

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, and the fourth business segment is our ION Solutions division.

Land Imaging Systems. Includes our 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.

Marine Imaging Systems. Consists of 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. Includes our software systems and related services for navigation and data management involving towed marine streamer and seabed operations.

ION Solutions. Combines our advanced seismic data processing services for marine and land environments, our marine seismic data libraries, and our Integrated Seismic Solutions services, which manage the entire seismic process from survey planning and design to data acquisition and management through pre-processing and final subsurface imaging.

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. It should not be relied upon for investment purposes, nor is it incorporated by reference into this prospectus.

For a description of our business, financial condition, results of operations and other important information regarding us, see our filings with the Securities and Exchange Commission (SEC) incorporated by reference in this prospectus. For instructions on how to find copies of these and our other filings incorporated by reference in this prospectus, see [Where You Can Find More Information](#).

Table of Contents

About this Prospectus

This prospectus is part of a registration statement that we filed with the SEC utilizing a shelf registration process. Under this shelf process, we or selling security holders may sell any combination of the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities we or selling security holders may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and any applicable prospectus supplement, you should rely on the information in the applicable prospectus supplement. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find More Information."

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document that we file at the Public Reference Room of the SEC located at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a website at www.sec.gov, from which interested persons can electronically access our SEC filings, including the registration statement of which this prospectus forms a part and the exhibits and schedules thereto.

The SEC allows us to incorporate by reference the information we file into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below, and all documents subsequently filed with the SEC pursuant to Section 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act) prior to the termination of the offering under this prospectus:

- (a) Our Annual Report on Form 10-K for our fiscal year ended December 31, 2007 (as amended by Form 10-K/A filed with the SEC on March 4, 2008);
- (b) Our Quarterly Reports on Form 10-Q filed with the SEC on May 7, 2008, August 7, 2008 and November 7, 2008;
- (c) Our Current Reports on Form 8-K filed with the SEC on February 15, 2008, February 22, 2008, February 28, 2008, March 3, 2008, July 8, 2008, July 9, 2008 (as amended by Form 8-K/A filed with the SEC on July 10, 2008), August 18, 2008, August 22, 2008, September 23, 2008 (as amended by Form 8-K/A filed with the SEC on November 3, 2008), November 20, 2008, December 4, 2008 and December 5, 2008, to the extent filed and not furnished pursuant to Section 13(a) of the Exchange Act; and
- (d) The description of our common stock, \$0.01 par value per share, contained in our Registration Statement on Form 8-A filed with the SEC in October 1994, as amended by our Current Report on Form 8-K filed with the SEC on March 8, 2002, our Current Report on Form 8-K filed with the SEC on December 20, 2007 and our Current Report on Form 8-K filed with the SEC on February 28, 2008.

Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for all purposes to the extent that a statement contained in this prospectus, any prospectus supplement or any other subsequently filed document which is also incorporated or deemed to be incorporated by reference, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide, without charge, to each person to whom a copy of this prospectus has been delivered, upon written or oral request of such person, a copy of any or all of the documents incorporated by reference herein (other than certain exhibits to such documents not specifically incorporated by reference). Requests for such copies should be directed to:

Table of Contents

ION Geophysical Corporation
2105 CityWest Blvd.
Suite 400
Houston, Texas 77042-2839
Tel: (281) 933-3339
Attention: Senior Vice President,
General Counsel and Corporate Secretary

We have not authorized anyone to give any information or make any representation about our company that is different from, or in addition to, that contained in this prospectus or in any of the materials that have been incorporated into this document. Therefore, if anyone does give you information of this sort, you should not rely on it. This prospectus is an offer to sell or buy only the securities described in this document, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus speaks only as of the date of this document unless the information specifically indicates that another date applies.

RISK FACTORS

Investing in these securities involves risks. Please read carefully the sections entitled Item 1A. Risk Factors beginning on page 14 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2007 (as amended), Item 1A. Risk Factors beginning on page 22 of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2008 and Item 1A. Risk Factors beginning on page 33 of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, previously filed with the SEC and incorporated by reference into this prospectus.

CAUTION CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus 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 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, 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 prospectus include statements regarding:

- our expectations for future financing and the refinancing of our existing indebtedness;
- the expected effects of current and future worldwide economic conditions and demand for oil and natural gas;
- future levels of spending by our customers;
- expected net revenues, income from operations and net income;
- expected gross margins for our products and services;
- future benefits to our customers to be derived from new products and services, such as Scorpion® and FireFly®;
- future growth rates for certain of our products and services;

Table of Contents

future sales to our significant customers;

our ability to continue to be able to leverage our costs by growing our revenues and earnings;

expectations concerning oil and gas 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;

the timing of anticipated sales;

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;

future cash needs and future sources of cash, including availability under our revolving line of credit facility;

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 oil and gas commodity prices;

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

future worldwide economic conditions;

success in integrating our acquired businesses;

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.

Table of Contents

We disclaim any obligation, other than as may be imposed by law, to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Table of Contents**USE OF PROCEEDS**

We intend to use the net proceeds from the sale of the securities for general corporate purposes. These purposes may include working capital for funding our operations, purchasing capital equipment, funding potential acquisitions, repaying debt and repurchasing shares of our common stock or other securities. Pending any specific application, we may invest the proceeds in short-term certificates of deposit, U.S. government securities or certain other interest-bearing securities. If we decide to use the net proceeds from a particular offering of securities for a specific purpose, we will describe that in the related prospectus supplement.

RATIOS OF EARNINGS TO FIXED CHARGES AND EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

The ratios of earnings to fixed charges and earnings to combined fixed charges and preferred stock dividends for each of the periods set forth below have been completed on a consolidated basis and should be read in conjunction with our consolidated financial statements, including the accompanying notes thereto, incorporated by reference in this prospectus. These ratios were as follows for the respective periods indicated:

	Fiscal Year Ended December 31,					Nine months ended September 30,	
	2003	2004	2005	2006	2007	2007	2008
Ratio of earnings to fixed charges	N/A	N/A	3.6x	5.4x	7.3x	5.2x	13.1x
Ratio of earnings to combined fixed charges and preferred stock dividends	N/A	N/A	3.0x	4.0x	5.5x	4.0x	8.0x

For purposes of calculating these ratios, earnings is defined as income before income taxes plus fixed charges. Fixed charges consist of interest on all indebtedness plus amortization of debt issuance costs and the portion of rental expense that we believe is representative of the interest component of rental expense. Preferred stock dividends represent the amount of pre-tax earnings required to pay dividends on our outstanding preferred stock. For the fiscal years ended December 31, 2003 and 2004, earnings were insufficient to cover fixed charges by \$22.8 million and \$7.9 million, respectively. We did not have any preferred stock dividends during the fiscal years ended December 31, 2003 and 2004.

DESCRIPTION OF CAPITAL STOCK

The following description summarizes selected information regarding our capital stock, as well as relevant provisions of (i) our restated certificate of incorporation dated September 24, 2007, (ii) our amended and restated bylaws dated September 21, 2007 and (iii) the General Corporation Law of the State of Delaware. For a complete description of the terms of our common and preferred stock outstanding and that we may offer in the future, please refer to our restated certificate of incorporation and bylaws.

Our authorized capital stock consists of 200,000,000 shares of common stock, \$0.01 par value per share, and 5,000,000 shares of preferred stock, \$0.01 par value per share, of which 30,000 shares have been designated as Series D-1 Cumulative Convertible Preferred Stock (the "Series D-1 Preferred Stock"), 5,000 shares have been designated as Series D-2 Cumulative Convertible Preferred Stock (the "Series D-2 Preferred Stock") and 35,000 shares have been designated as Series D-3 Cumulative Convertible Preferred Stock (the "Series D-3 Preferred Stock"). The Series D-1 Preferred Stock, Series D-2 Preferred Stock and Series D-3 Preferred Stock are collectively referred to in this prospectus as the "Series D Preferred Stock." As of October 31, 2008, there were 99,432,147 shares of common stock outstanding. As of October 31, 2008, there were 30,000 shares of Series D-1 Preferred Stock outstanding, 5,000 shares of Series D-2 Preferred Stock outstanding and 35,000 shares of Series D-3 Preferred Stock outstanding. No other shares of preferred stock were issued and outstanding.

As used in this section of the prospectus and under the captions "Description of Debt Securities," "Description of Warrants" and "Description of Units," the terms "we," "us" and "our" refer only to ION Geophysical Corporation and not to any existing or future subsidiaries of ION Geophysical Corporation.

Table of Contents**Common Stock**

Holders of common stock are entitled to one vote for each share held of record by them on all matters submitted to a vote of the stockholders, and do not have any cumulative voting rights. Holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by our board of directors out of funds legally available therefor, and are subject to the preferential dividend rights of the holders of our Series D Preferred Stock and any preferential dividend rights of our preferred stock that we may issue in the future. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all of our assets remaining after the payment of all debt and other liabilities and after payment of the liquidation preference on our Series D Preferred Stock and the liquidation preference of any other preferred stock that we may issue in the future. Holders of common stock do not have, solely by virtue of being such holders, any preemptive, subscription or conversion rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

General. Our board of directors is authorized, subject to certain restrictions, without further stockholder approval, to issue at any time and from time to time, preferred stock in one or more series. Each such series shall have such number of shares, designations, preferences, voting powers, qualifications and special or relative rights or privileges and restrictions as shall be determined by our board of directors. These rights, privileges and restrictions may include dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and preemptive rights, to the full extent now or hereafter provided by Delaware law.

The rights of holders of our common stock are subject to, and may be adversely affected by, the rights of holders of our outstanding Series D Preferred Stock and any preferred stock that we may issue in the future. In addition, the issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of ION without further action by our stockholders. The issuance of preferred stock having voting and conversion rights may adversely affect the holders of our common stock. Satisfaction of any dividend preferences of our outstanding preferred stock would reduce the amount of funds available, if any, for the payment of dividends on our common stock. Holders of preferred stock are typically entitled to receive a preference payment upon our liquidation before holders of our common stock are entitled to receive any payments in liquidation. Under certain circumstances, the issuance of preferred stock could have the effect of decreasing the market price of our common stock.

Series D Preferred Stock. On February 16, 2005, December 6, 2007 and February 21, 2008, we sold to Fletcher International, Ltd. (Fletcher), 30,000 shares of Series D-1 Preferred Stock, 5,000 shares of Series D-2 Preferred Stock and 35,000 shares of Series D-3 Preferred Stock, respectively, in privately-negotiated transactions exempt from registration under the Securities Act. The purchase prices for the Series D-1 Preferred Stock, the Series D-2 Preferred Stock and the Series D-3 Preferred Stock were \$30.0 million, \$5.0 million and \$35.0 million, respectively.

The terms of our Series D Preferred Stock provide that its shares are convertible into shares of our common stock and, prior to the delivery of the Reset Notice described in the following paragraph, were redeemable for cash or in shares of our common stock. In accordance with the terms of our agreement with Fletcher, all of the shares of Series D Preferred Stock were issued having initial conversion prices equal to 122% of an average market price of our common stock at the time a particular Series was issued.

On November 28, 2008, we delivered a notice (the Reset Notice) to Fletcher of our intention to reset the conversion prices on our outstanding shares of Series D Preferred Stock held by Fletcher. The Reset Notice was given by us in accordance with the terms of our agreement with Fletcher. Effective November 28, 2008, which was the date of delivery of the Reset Notice, the conversion price for the Series D Preferred Stock became \$4.4517 per share. The number of shares of common stock that may be acquired upon conversion of the Series D Preferred Stock and the conversion price per share are subject to adjustment in certain events.

Table of Contents

Under our agreement with Fletcher, the aggregate number of shares of our common stock issued or issuable to Fletcher upon conversion of the Series D Preferred Stock may not exceed a designated maximum number of shares (the Maximum Number). Our agreement with Fletcher designated 7,669,434 shares as the original Maximum Number. Our agreement with Fletcher also provides that the Maximum Number may be increased by Fletcher providing us with a 65-day notice of increase, but in no event may 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. On November 28, 2008, Fletcher delivered its notice to us to increase the Maximum Number to 9,669,434 shares, effective on February 1, 2009.

The new Maximum Number represents approximately 8.85% of our total outstanding shares of common stock as of December 2, 2008 (calculated in accordance with Rule 13d-3(d)(1) under the Exchange Act). Prior to adjusting the conversion prices for the Series D Preferred Stock to \$4.4517 per share, the total outstanding shares of Series D Preferred Stock were convertible into 6,489,260 shares of our common stock, or approximately 6.12% of the total outstanding shares of our common stock as of December 2, 2008 (calculated in accordance with Rule 13d-3(d)(1) under the Exchange Act).

Following the adjustment of the conversion prices for the Series D Preferred Stock to \$4.4517 per share, the terms of the Series D-1 Preferred Stock, Series D-2 Preferred Stock and Series D-3 Preferred Stock are substantially the same. The Series D-1 Preferred Stock, Series D-2 Preferred Stock and Series D-3 Preferred Stock each have a minimum annual dividend rate of 5.0% and a maximum annual dividend rate of LIBOR plus 2.5%, payable quarterly. So long as any shares of Series D Preferred Stock are outstanding, we may not pay any dividends in cash or property to holders of our common stock, and we may not purchase or redeem for cash or property any shares of our common stock, unless there are no arrearages in dividends paid on the Series D Preferred Stock and sufficient cash has been set aside to pay dividends on the Series D Preferred Stock for the next four quarterly dividend periods.

As a result of our election under the Reset Notice, (i) Fletcher is no longer permitted to redeem its shares of Series D Preferred Stock, and (ii) we are required to pay all dividends on the Series D Preferred Stock in cash and not by the issuance of our common stock. All dividends declared and paid to date on the Series D Preferred Stock have been declared and paid in cash.

If a series of preferred stock is offered pursuant to this prospectus, we will describe the specific terms of such series of preferred stock, including rights, if any, with respect to voting, dividends and liquidation preferences, the conversion rights, if any, and the restrictions, if any, on the repurchase or redemption of the preferred stock by us, in the prospectus supplement relating to that series. The description of preferred stock set forth in this prospectus and in any description of the terms of a particular series of preferred stock in the related prospectus supplement will contain only a summary of the terms of such series. You should refer to the applicable certificate of designation for such series of preferred stock for complete information with respect to such preferred stock. The prospectus supplement will also contain a description of certain U.S. federal income tax consequences relating to the preferred stock.

Effects of Certain Anti-Takeover Provisions in our Restated Certificate of Incorporation and Bylaws

Certain provisions of our restated certificate of incorporation and bylaws summarized below may be deemed to have an anti-takeover effect and may delay, defer or prevent a tender offer or takeover attempt that an investor might consider in that investor's best interest, including any attempt that might result in a premium over the market price for shares of our common stock.

Staggered Board of Directors; Removal Only For Cause. Our board of directors is divided into three classes that are elected for staggered three-year terms. Our stockholders may only remove a director for cause.

Limitation of Directors' Liability. Our restated certificate of incorporation provides that our directors generally will not be personally liable for monetary damages for breach of their fiduciary duties as a director. These provisions would not limit the liability of a director for breach of the director's duty of loyalty, acts or omissions not

Table of Contents

in good faith or which involve intentional misconduct or a knowing violation of law, payment of an unlawful dividend or any unlawful stock purchase or redemption or any transaction for which the director derived an improper benefit.

Indemnification and Insurance. Our restated certificate of incorporation and bylaws also provide that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. We have entered into separate indemnification agreements with certain of our directors and executive officers. In addition, we carry officer and director liability insurance.

Fair Price Provision. Our restated certificate of incorporation contains a fair price provision that requires the approval of holders of not less than 75% of the outstanding shares of our voting stock (including not less than 66 2/3% of the outstanding shares of voting stock not owned, directly or indirectly, by persons who are Related Persons) as a condition for approving mergers, consolidations and certain other business combinations, including management buyouts, involving ION and any Related Person ; however, this 66 2/3% voting requirement is not applicable if the business combination is approved by the holders of not less than 90% of the outstanding shares of our voting stock. The term Related Persons includes holders of 10% or more of our outstanding voting stock and any affiliate of such persons. The 75% voting requirement is not applicable to a business combination between ION and any wholly-owned subsidiary of ION, or a business combination involving a holder of 10% or more of our outstanding voting stock so long as the acquisition by such holder of such stock or the proposed transaction is approved in advance of such person becoming a holder of 10% of our outstanding voting stock by not less than 75% of our directors then holding office, or if the following conditions are met:

the transaction is a merger or consolidation proposed to occur within one year of the time such holder acquired 10% of our outstanding voting stock and the price to be paid to holders of common stock is at least as high as the highest price paid by such holder in acquiring any of our common stock;

the consideration to be paid in the transaction is cash or the same form of consideration paid by such holder to acquire a majority of its holdings of common stock;

between the date of the acquisition by the holder of 10% of our outstanding voting stock and the transaction, there has been no failure to declare and pay any preferred stock dividends and no reduction in common stock dividends (except as approved by a majority of our unaffiliated directors), no further acquisition of voting stock by such holder and no benefit, direct or indirect, received by such holder through loans or other financial assistance from ION or tax credits or other tax advantages provided by ION; and

a proxy statement shall have been mailed to stockholders at least 30 days prior to the consummation of the transaction for the purpose of soliciting stockholder approval of the transaction.

Other Provisions of Certificate of Incorporation. Our restated certificate of incorporation also provides that: special meetings of stockholders can be called only by our board of directors;

stockholders may act only at an annual or special meeting of stockholders and may not act by written consent;

our bylaws may be amended only by our board of directors or with the vote of not less than 75% of the outstanding shares of our voting stock;

a 75% vote of the outstanding voting stock is required to amend our certificate of incorporation with respect to certain matters, including, without limitation, the matters set forth in the two immediately preceding clauses above regarding no written consents of stockholders and bylaws amendments, and the

Table of Contents

75% voting requirement for certain business combinations described in the immediately preceding paragraph; and

in addition to the 75% voting requirement referred to in the immediately preceding clause above, a 66 2/3% vote of the outstanding shares of our voting stock not owned by a Related Person is required to amend the provisions of our certificate of incorporation relating to certain business combinations described in the immediately preceding paragraph.

Advance Notice Procedures. Our bylaws establish advance notice procedures with regard to the nomination, other than those made by or at the direction of the board of directors, of candidates for election as directors and as to any other business to be brought before an annual or special meeting of our stockholders. These procedures provide that the notice of proposed stockholder nominations for the election of directors must be timely given in writing to our corporate secretary prior to the meeting at which directors are to be elected. To be timely, notice must be delivered to or mailed and received at our principal executive offices (a) for annual meetings of stockholders, not later than the close of business on the 120th prior to the first anniversary of the date our proxy statement was released to stockholders in connection with our previous year's annual stockholders meeting, or (b) for special meetings at which our board of directors has determined that directors shall be elected, not later than the close of business on the 120th day prior to such special meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the board of directors to be elected at such meeting. The procedures also provide that at an annual meeting, and subject to any other applicable requirements, only such business may be conducted as has been brought before the meeting by, or at the direction of, the board of directors or by a stockholder who has given timely prior written notice to our corporate secretary of that stockholder's intention to bring such business before the meeting. For such stockholder's notice to be timely, notice must be delivered to or mailed and received at our principal executive offices not later than the close of business on the date that is 120 days prior to the first anniversary of the date our proxy statement was released to stockholders in connection with our previous year's annual stockholders meeting. The notices must contain certain information, and are subject to other qualifications, specified in the bylaws.

Delaware Anti-Takeover Law

We are incorporated in Delaware and are subject to Section 203 of the Delaware General Corporation Law. In general, Section 203 prevents an interested stockholder (defined generally as a person owning 15% or more of a corporation's outstanding voting stock) from engaging in a business combination with a Delaware corporation for three years following the date such person became an interested stockholder, unless (i) before such person became an interested stockholder, the board of directors of the corporation approved the transaction in which the interested stockholder became an interested stockholder or approved the business combination; (ii) upon consummation of the transaction that resulted in the interested stockholder's becoming an interested stockholder, the interested stockholder owns at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced (excluding stock held by directors who are also officers of the corporation and by employee stock plans that do not provide employees with the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); or (iii) on or subsequent to the date of the transaction in which such person became an interested stockholder, the business combination is approved by the board of directors of the corporation and authorized at a meeting of the stockholders by the affirmative vote of the holders of two-thirds of the outstanding voting stock of the corporation not owned by the interested stockholder.

Under Section 203, the restrictions described above also do not apply to certain business combinations proposed by an interested stockholder following the announcement or notification of one of certain extraordinary transactions involving the corporation and a person who had not been an interested stockholder during the previous three years or who became an interested stockholder with the approval of a majority of the corporation's directors, if such extraordinary transaction is approved or not opposed by a majority of the directors who were directors prior to any person becoming an interested stockholder during the previous three years or were recommended for election or elected to succeed such directors by a majority of such directors.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

Our debt securities, consisting of notes, debentures or other evidences of indebtedness, may be issued from time to time in one or more series pursuant to, in the case of senior debt securities, a senior indenture to be entered into between us and a trustee to be named therein, and in the case of subordinated debt securities, a subordinated indenture to be entered into between us and a trustee to be named therein. The terms of our debt securities will include those set forth in the indentures and those made a part of the indentures by the Trust Indenture Act of 1939, as amended.

Because the following is only a summary of selected provisions of the indentures and the debt securities, it does not contain all information that may be important to you. This summary is not complete and is qualified in its entirety by reference to the base indentures and any supplemental indentures thereto or officer's certificate or board resolution related thereto. We urge you to read the indentures because the indentures, not this description, define the rights of the holders of the debt securities. The senior indenture and the subordinated indenture will be substantially in the forms included as exhibits to the registration statement of which this prospectus is a part.

General

The senior debt securities will constitute unsecured and unsubordinated obligations of ours and will rank *pari passu* with our other unsecured and unsubordinated obligations. The subordinated debt securities will constitute our unsecured and subordinated obligations and will be junior in right of payment to our Senior Indebtedness (including senior debt securities), as described under the heading "Certain Terms of the Subordinated Debt Securities Subordination."

We conduct some of our operations through subsidiaries. Consequently, our ability to pay our obligations, including our obligation to pay principal or interest on the debt securities, to pay the debt securities at maturity or upon redemption or to buy the debt securities may depend on our subsidiaries repaying investments and advances we have made to them, and on our subsidiaries' earnings and their distributing those earnings to us. The debt securities will be effectively subordinated to all obligations (including trade payables and any preferred stock obligations) of our subsidiaries. Our subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to pay any amounts due on the debt securities or to make funds available to us to do so. Our subsidiaries' ability to pay dividends or make other payments or advances to us will depend on their operating results and will be subject to applicable laws and contractual restrictions. The indentures will not limit our subsidiaries' ability to enter into other agreements that prohibit or restrict dividends or other payments or advances to us, although our other debt obligations may contain provisions that limit our subsidiaries' ability to do so.

The debt securities will be our unsecured obligations. Our secured debt and other secured obligations will be effectively senior to the debt securities to the extent of the value of the assets securing such debt or other obligations.

You should look in the prospectus supplement for any additional or different terms of the debt securities being offered, including the following terms:

the debt securities' designation;

the aggregate principal amount of the debt securities;

the percentage of their principal amount (i.e. price) at which the debt securities will be issued;

the date or dates on which the debt securities will mature and the right, if any, to extend such date or dates;

the rate or rates, if any, per year, at which the debt securities will bear interest, or the method of determining such rate or rates;

Table of Contents

the date or dates from which such interest will accrue, the interest payment dates on which such interest will be payable or the manner of determination of such interest payment dates and the record dates for the determination of holders to whom interest is payable on any interest payment date;

the right, if any, to extend the interest payment periods and the duration of that extension;

the manner of paying principal and interest and the place or places where principal and interest will be payable;

provisions for a sinking fund purchase or other analogous fund, if any;

the period or periods, if any, within which, the price or prices at which, and the terms and conditions upon which the debt securities may be redeemed, in whole or in part, at our option or at your option;

the form of the debt securities;

any provisions for payment of additional amounts for taxes and any provision for redemption, if we must pay such additional amounts in respect of any debt security;

the terms and conditions, if any, upon which we may have to repay the debt securities early at your option;

the currency, currencies or currency units for which you may purchase the debt securities and the currency, currencies or currency units in which principal and interest, if any, on the debt securities may be payable;

the terms and conditions upon which conversion or exchange of the debt securities may be effected, if any, including the initial conversion or exchange price or rate and any adjustments thereto and the period or periods when a conversion or exchange may be effected;

whether and upon what terms the debt securities may be defeased;

any events of default or covenants in addition to or in lieu of those set forth in the indenture;

provisions for electronic issuance of debt securities or for debt securities in uncertificated form; and

any other terms of the debt securities, including any terms which may be required by or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

We may from time to time, without notice to or the consent of the holders of any series of debt securities, create and issue further debt securities of any such series ranking equally with the debt securities of such series in all respects (or in all respects other than the payment of interest accruing prior to the issue date of such further debt securities or except for the first payment of interest following the issue date of such further debt securities). Such further debt securities may be consolidated and form a single series with the debt securities of such series and have the same terms as to status, redemption or otherwise as the debt securities of such series.

You may present debt securities for exchange and you may present debt securities for transfer in the manner, at the places and subject to the restrictions set forth in the debt securities and the applicable prospectus supplement. We will provide you those services without charge, although you may have to pay any tax or other governmental charge payable in connection with any exchange or transfer, as set forth in the indenture.

Debt securities will bear interest at a fixed rate or a floating rate. Debt securities bearing no interest or interest at a rate that at the time of issuance is below the prevailing market rate (original issue discount securities)

Table of Contents

may be sold at a discount below their stated principal amount. Special U.S. federal income tax considerations applicable to any such discounted debt securities or to certain debt securities issued at par which are treated as having been issued at a discount for U.S. federal income tax purposes will be described in the applicable prospectus supplement.

We may issue debt securities with the principal amount payable on any principal payment date, or the amount of interest payable on any interest payment date, to be determined by reference to one or more currency exchange rates, securities or baskets of securities, commodity prices or indices. You may receive a payment of principal on any principal payment date, or a payment of interest on any interest payment date, that is greater than or less than the amount of principal or interest otherwise payable on such dates, depending on the value on such dates of the applicable currency, security or basket of securities, commodity or index. Information as to the methods for determining the amount of principal or interest payable on any date, the currencies, securities or baskets of securities, commodities or indices to which the amount payable on such date is linked and certain additional tax considerations will be set forth in the applicable prospectus supplement.

Certain Terms of the Senior Debt Securities

Covenants

Unless otherwise indicated in a prospectus supplement, the senior debt securities will not contain any financial or restrictive covenants, including covenants restricting either us or any of our subsidiaries from incurring, issuing, assuming or guaranteeing any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, or restricting either us or any of our subsidiaries from entering into sale and leaseback transactions.

Consolidation, Merger and Sale of Assets

Unless we indicate otherwise in a prospectus supplement, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to any person, unless:

the successor entity, if any, is a U.S. corporation, limited liability company, partnership or trust (subject to certain exceptions provided for in the senior indenture);

the successor entity assumes our obligations on the senior debt securities and under the senior indenture;

immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and

certain other conditions are met.

No Protection in the Event of a Change of Control

Unless otherwise indicated in a prospectus supplement with respect to a particular series of senior debt securities, the senior debt securities will not contain any provisions which may afford holders of the senior debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Events of Default

An event of default for any series of senior debt securities is defined under the senior indenture as being:

- (1) our default in the payment of principal or premium on the senior debt securities of such series when due

Table of Contents

and payable whether at maturity, upon acceleration, redemption, or otherwise;

- (a) relief in respect of our company in an involuntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect;
 - (b) appointment of a receiver, liquidator, assignee, custodian, trustee, sequestrator or similar official for our company or for all or substantially all of our property and assets; or
 - (c) the winding up or liquidation of our affairs and such decree or order shall remain unstayed and in effect for a period of 60 consecutive days; or
- (6) we:
- (a) commence a voluntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or consent to the entry of an order for relief in an involuntary case under any such law;
 - (b) consent to the appointment of or taking possession by a receiver, liquidator, assignee, custodian, trustee, sequestrator or similar official of ours for all or substantially all of our property and assets; or
 - (c) effect any general assignment for the benefit of creditors.

The default by us under any other debt, including any other series of debt securities, may not necessarily be a default under the senior indenture.

If an event of default other than an event of default specified under clauses (5) or (6) above occurs with respect to a series of senior debt securities and is continuing under the senior indenture, then, and in each and every such case, either the trustee or the holders of not less than 25% in aggregate principal amount of such series then outstanding under the senior indenture (each such series voting as a separate class) by written notice to us and to the trustee, if such notice is given by the holders, may, and the trustee at the request of such holders shall, declare the principal amount of and accrued interest, if any, on such senior debt securities to be immediately due and payable.

If an event of default specified under clauses (5) or (6) above occurs with respect to us, the entire principal amount of, and accrued interest, if any, on each series of senior debt securities then outstanding shall become immediately due and payable without any declaration or other act by the trustee or any holder.

Upon any such acceleration, the principal amount of and accrued interest, if any, on such senior debt securities shall be immediately due and payable. Unless otherwise specified in the prospectus supplement relating to a series of senior debt securities originally issued at a discount, the amount due upon acceleration shall include only the original issue price of the senior debt securities, the amount of original issue discount accrued to the date of acceleration and accrued interest, if any.

Upon certain conditions, declarations of acceleration may be rescinded and annulled and past defaults may be waived by the holders of a majority in aggregate principal amount of all the senior debt securities of such series affected by the default, each series voting as a separate class (or, of all the senior debt securities, as the case may be,

Table of Contents

voting as a single class). Furthermore, subject to various provisions in the senior indenture, the holders of at least a majority in aggregate principal amount of a series of senior debt securities, by notice to the trustee, may waive an existing default or event of default with respect to such senior debt securities and its consequences, except a default in the payment of principal of or interest on such senior debt securities or in respect of a covenant or provision of the senior indenture which cannot be modified or amended without the consent of the holders of each such senior debt security. Upon any such waiver, such default shall cease to exist, and any event of default with respect to such senior debt securities shall be deemed to have been cured, for every purpose of the senior indenture; but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto. See also

Modification and Waiver below.

The holders of at least a majority in aggregate principal amount of a series of senior debt securities may direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to such senior debt securities. However, the trustee may refuse to follow any direction that conflicts with law or the senior indenture, that may involve the trustee in personal liability, or that the trustee determines in good faith may be unduly prejudicial to the rights of holders of such series of senior debt securities not joining in the giving of such direction and may take any other action it deems proper that is not inconsistent with any such direction received from holders of such series of senior debt securities. A holder may not pursue any remedy with respect to the senior indenture or any series of senior debt securities unless:

the holder gives the trustee written notice of a continuing event of default;

the holders of at least 25% in aggregate principal amount of such series of senior debt securities make a written request to the trustee to pursue the remedy in respect of such event of default;

the requesting holder or holders offer the trustee indemnity satisfactory to the trustee against any costs, liability, or expense;

the trustee does not comply with the request within 60 days after receipt of the request and the offer of indemnity; and

during such 60-day period, the holders of a majority in aggregate principal amount of such series of senior debt securities do not give the trustee a direction that is inconsistent with the request.

These limitations, however, do not apply to the right of any holder of a senior debt security to receive payment of the principal of or interest, if any, on such senior debt security, or to bring suit for the enforcement of any such payment, on or after the due date for the senior debt securities, which right shall not be impaired or affected without the consent of the holder.

The senior indenture requires certain of our officers to certify, on or before a fixed date in each year in which any senior debt security is outstanding, as to their knowledge of our compliance with all conditions and covenants under the senior indenture.

Discharge and Defeasance

The senior indenture provides that, unless the terms of any series of senior debt securities provide otherwise, we may discharge our obligations with respect to a series of senior debt securities and the senior indenture with respect to such series of senior debt securities if:

we pay or cause to be paid, as and when due and payable, the principal of and any interest on all senior debt securities of such series outstanding under the senior indenture;

all senior debt securities of such series previously authenticated and delivered, with certain exceptions, have been delivered to the trustee for cancellation; or

Table of Contents

the senior debt securities of such series mature within one year or all of them are to be called for redemption within one year under arrangements satisfactory to the trustee for giving the notice of redemption, and we irrevocably deposit in trust with the trustee, as trust funds solely for the benefit of the holders of the senior debt securities of such series, for that purpose, the entire amount in cash or, in the case of any series of senior debt securities payments on which may only be made in U.S. dollars, U.S. government obligations (maturing as to principal and interest in such amounts and at such times as will insure the availability of cash sufficient), after payment of all federal, state and local taxes or other charges and assessments in respect thereof payable by the trustee, to pay principal of and interest on the senior debt securities of such series to maturity or redemption, as the case may be, and to pay all other sums payable by us under the senior indenture.

With respect to the first and second bullet points, only our obligations to compensate and indemnify the trustee and our right to recover unclaimed money held by the trustee under the senior indenture shall survive. With respect to the third bullet point, certain rights and obligations under the senior indenture (such as our obligation to maintain an office or agency in respect of such senior debt securities, to have moneys held for payment in trust, to register the transfer or exchange of such senior debt securities, to deliver such senior debt securities for replacement or to be canceled, to compensate and indemnify the trustee and to appoint a successor trustee, and our right to recover unclaimed money held by the trustee) shall survive until such senior debt securities are no longer outstanding. Thereafter, only our obligations to compensate and indemnify the trustee and our right to recover unclaimed money held by the trustee shall survive.

Unless the terms of any series of senior debt securities provide otherwise, on the 121st day after the date of deposit of the trust funds with the trustee, we will be deemed to have paid and will be discharged from any and all obligations in respect of the series of senior debt securities provided for in the funds, and the provisions of the senior indenture will no longer be in effect with respect to such senior debt securities (legal defeasance); provided that the following conditions shall have been satisfied:

we have irrevocably deposited in trust with the trustee as trust funds solely for the benefit of the holders of the senior debt securities of such series, for payment of the principal of and interest on the senior debt securities of such series, cash in an amount or, in the case of any series of senior debt securities, the payments on which can only be made in U.S. dollars, U.S. government obligations (maturing as to principal and interest at such times and in such amounts as will insure the availability of cash) or a combination thereof sufficient (in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the trustee), after payment of all federal, state and local taxes or other charges and assessments in respect thereof payable by the trustee, to pay and discharge the principal of and accrued interest on the senior debt securities of such series to maturity or earlier redemption, as the case may be, and any mandatory sinking fund payments on the day on which such payments are due and payable in accordance with the terms of the senior indenture and the senior debt securities of such series;

such deposit will not result in a breach or violation of, or constitute a default under, the senior indenture or any other material agreement or instrument to which we are a party or by which we are bound;

we shall have delivered to the trustee either an officer's certificate and an opinion of counsel that the holders of the senior debt securities of such series will not recognize income, gain or loss for federal income tax purposes as a result of our exercising our option under this provision of the senior indenture and will be subject to federal income tax on the same amount and in the same manner and at the same times as would have been the case if such deposit and defeasance had not occurred or a ruling by the Internal Revenue Service to the same effect; and

we have delivered to the trustee an officer's certificate and an opinion of counsel, in each case stating that all conditions precedent provided for in the senior indenture relating to the contemplated defeasance of the senior debt securities of such series have been complied with.

Table of Contents

Subsequent to the legal defeasance above, certain rights and obligations under the senior indenture (such as our obligation to maintain an office or agency in respect of such senior debt securities, to have moneys held for payment in trust, to register the exchange of such senior debt securities, to deliver such senior debt securities for replacement or to be canceled, to compensate and indemnify the trustee and to appoint a successor trustee, and our right to recover unclaimed money held by the trustee) shall survive until such senior debt securities are no longer outstanding. After such senior debt securities are no longer outstanding, only our obligations to compensate and indemnify the trustee and our right to recover unclaimed money held by the trustee shall survive.

Modification and Waiver

We and the trustee may amend or supplement the senior indenture or the senior debt securities without the consent of any holder:

to convey, mortgage or pledge any assets as security for the senior debt securities of one or more series;

to evidence the succession of another corporation to us, and the assumption by such successor corporation of our covenants, agreements and obligations under the senior indenture;

to cure any ambiguity, defect, or inconsistency in the senior indenture or in any supplemental indenture, or to conform the senior indenture or the senior debt securities to the description of senior debt securities of such series set forth in this prospectus or a prospectus supplement;

to comply with the provisions described under Consolidation, Merger and Sale of Assets ;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee, or to make such changes as shall be necessary to provide for or facilitate the administration of the trusts in the senior indenture by more than one trustee;

to provide for or add guarantors with respect to the senior debt securities of any series;

to establish the form or forms or terms of the senior debt securities as permitted by the senior indenture;

to make any change that is necessary or desirable provided that such change shall not adversely affect the interests of the holders of the senior debt securities of any series in any material respect;

to add to our covenants such new covenants, restrictions, conditions or provisions for the protection of the holders, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default;

to make any change to the senior debt securities of any series so long as no senior debt securities of such series are outstanding; or

to make any change that does not adversely affect the rights of any holder.

Other amendments and modifications of the senior indenture or the senior debt securities issued may be made, and our compliance with any provision of the senior indenture with respect to any series of senior debt securities may be waived, with the consent of the holders of not less than a majority of the aggregate principal amount of the outstanding senior debt securities of all series affected by the amendment or modification (voting as one class); provided, however, that each affected holder must consent to any modification, amendment or waiver that:

Table of Contents

changes the stated maturity of the principal of, or any installment of interest on, any senior debt securities of such series;

reduces the principal amount of, or premium, if any, or interest on, any senior debt securities of such series;

changes the place or currency of payment of principal of, or premium, if any, or interest on, any senior debt securities of such series;

changes the provisions for calculating the optional redemption price, including the definitions relating thereto;

changes or impairs the right of holders to receive payment or to institute suit for the enforcement of any payment of any senior debt securities of such series on or after the due date therefor;

reduces the above-stated percentage of outstanding senior debt securities of such series, the consent of whose holders is necessary to modify or amend or to waive certain provisions of or defaults under the senior indenture;

waives a default in the payment of principal of or interest on the senior debt securities; or

modifies any of the provisions described in this paragraph, except to increase any required percentage or to provide that certain other provisions cannot be modified or waived without the consent of the holder of each senior debt security of such series affected by the modification.

It shall not be necessary for the consent of the holders under this section of the senior indenture to approve the particular form of any proposed amendment, supplement or waiver, but it shall be sufficient if such consent approves the substance thereof. After an amendment, supplement or waiver under this section of the senior indenture becomes effective, the trustee must give to the holders affected thereby certain notice briefly describing the amendment, supplement or waiver. We will mail supplemental indentures to holders upon request. Any failure by the trustee to give such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture or waiver.

No Personal Liability of Incorporators, Stockholders, Officers, Directors

The senior indenture provides that no recourse shall be had under or upon any obligation, covenant, or agreement of ours in the senior indenture or any supplemental indenture, or in any of the senior debt securities or because of the creation of any indebtedness represented thereby, against any incorporator, stockholder, officer or director of ours or of any successor person thereof under any law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise. Each holder, by accepting the senior debt securities, waives and releases all such liability.

Concerning the Trustee

The senior indenture provides that, except during the continuance of a default, the trustee will not be liable except for the performance of such duties as are specifically set forth in the senior indenture. If an event of default has occurred and is continuing, the trustee will exercise such rights and powers vested in it under the senior indenture and will use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

We may have normal banking relationships with the trustee under the senior indenture in the ordinary course of business.

Table of Contents

Unclaimed Funds

All funds deposited with the trustee or any paying agent for the payment of principal, interest, premium or additional amounts in respect of the senior debt securities that remain unclaimed for two years after the maturity date of such senior debt securities will be repaid to us upon our request. Thereafter, any right of any noteholder to such funds shall be enforceable only against us, and the trustee and paying agents will have no liability therefor.

Governing Law

The senior indenture and the debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York.

Certain Terms of the Subordinated Debt Securities

Other than the terms of the subordinated indenture and subordinated debt securities relating to subordination, or otherwise as described in the prospectus supplement relating to a particular series of subordinated debt securities, the terms of the subordinated indenture and subordinated debt securities are identical in all material respects to the terms of the senior indenture and senior debt securities. Additional or different subordination terms may be specified in the prospectus supplement applicable to a particular series.

Subordination

The indebtedness evidenced by the subordinated debt securities is subordinate to the prior payment in full of all our Senior Indebtedness, as defined in the subordinated indenture. During the continuance beyond any applicable grace period of any default in the payment of principal, premium, interest or any other payment due on any of our Senior Indebtedness, we may not make any payment of principal of, or premium, if any, or interest on the subordinated debt securities. In addition, upon any payment or distribution of our assets upon any dissolution, winding up, liquidation or reorganization, the payment of the principal of, or premium, if any, and interest on the subordinated debt securities will be subordinated to the extent provided in the subordinated indenture in right of payment to the prior payment in full of all our Senior Indebtedness. Because of this subordination, if we dissolve or otherwise liquidate, holders of our subordinated debt securities may receive less, ratably, than holders of our Senior Indebtedness. The subordination provisions do not prevent the occurrence of an event of default under the subordinated indenture.

The term *Senior Indebtedness* of a person means with respect to such person the principal of, premium, if any, interest on, and any other payment due pursuant to any of the following, whether outstanding on the date of the subordinated indenture or incurred by that person in the future:

all of the indebtedness of that person for money borrowed, including any indebtedness secured by a mortgage or other lien which is (i) given to secure all or part of the purchase price of property subject to the mortgage or lien, whether given to the vendor of that property or to another lender, or (ii) existing on property at the time that person acquires it;

all of the indebtedness of that person evidenced by notes, debentures, bonds or other securities sold by that person for money;

all of the lease obligations which are capitalized on the books of that person in accordance with generally accepted accounting principles;

all indebtedness of others of the kinds described in the first two bullet points above and all lease obligations of others of the kind described in the third bullet point above, which the person, in any manner, assumes or guarantees or that the person in effect guarantees through an agreement to purchase, whether that agreement is contingent or otherwise; and

Table of Contents

all renewals, extensions or refundings of indebtedness of the kinds described in the first, second or fourth bullet point above and all renewals or extensions of leases of the kinds described in the third or fourth bullet point above;

unless, in the case of any particular indebtedness, lease, renewal, extension or refunding, the instrument or lease creating or evidencing it or the assumption or guarantee relating to it expressly provides that such indebtedness, lease, renewal, extension or refunding is not superior in right of payment to the subordinated debt securities. Our senior debt securities constitute Senior Indebtedness for purposes of the subordinated debt indenture.

DESCRIPTION OF THE DEPOSITARY SHARES

At our option, we may elect to offer fractional shares of preferred stock, rather than full shares of preferred stock. If we do elect to offer fractional shares of preferred stock, we will issue to the public receipts for depositary shares and each of these depositary shares will represent a fraction of a share of a particular series of preferred stock, as specified in the applicable prospectus supplement. Each owner of a depositary share will be entitled, in proportion to the applicable fractional interest in shares of preferred stock underlying that depositary share, to all rights and preferences of the preferred stock underlying that depositary share. These rights may include dividend, voting, redemption and liquidation rights.

The shares of preferred stock underlying the depositary shares will be deposited with a bank or trust company selected by us to act as depositary, under a deposit agreement between us, the depositary and the holders of the depositary receipts. The depositary will be the transfer agent, registrar and dividend disbursing agent for the depositary shares.

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Holders of depositary receipts agree to be bound by the deposit agreement, which requires holders to take certain actions such as filing proof of residence and paying certain charges.

The summary of terms of the depositary shares contained in this prospectus is not complete. You should refer to the forms of the deposit agreement, our certificate of incorporation and the certificate of designation for the applicable series of preferred stock that are, or will be, filed with the SEC.

Dividends

The depositary will distribute cash dividends or other cash distributions, if any, received in respect of the series of preferred stock underlying the depositary shares to the record holders of depositary receipts in proportion to the number of depositary shares owned by those holders on the relevant record date. The relevant record date for depositary shares will be the same date as the record date for the preferred stock.

In the event of a distribution other than in cash, the depositary will distribute property received by it to the record holders of depositary receipts that are entitled to receive the distribution, unless the depositary determines that it is not feasible to make the distribution. If this occurs, the depositary, with our approval, may adopt another method for the distribution, including selling the property and distributing the net proceeds to the holders.

Liquidation Preference

If a series of preferred stock underlying the depositary shares has a liquidation preference, in the event of the voluntary or involuntary liquidation, dissolution or winding up of ION, holders of depositary shares will be entitled to receive the fraction of the liquidation preference accorded each share of the applicable series of preferred stock, as set forth in the applicable prospectus supplement.

Table of Contents

Redemption

If a series of preferred stock underlying the depositary shares is subject to redemption, the depositary shares will be redeemed from the proceeds received by the depositary resulting from the redemption, in whole or in part, of the preferred stock held by the depositary. Whenever we redeem any preferred stock held by the depositary, the depositary will redeem, as of the same redemption date, the number of depositary shares representing the preferred stock so redeemed. The depositary will mail the notice of redemption to the record holders of the depositary receipts promptly upon receiving the notice from us and no fewer than 20 or more than 60 days, unless otherwise provided in the applicable prospectus supplement, prior to the date fixed for redemption of the preferred stock.

Voting

Upon receipt of notice of any meeting at which the holders of preferred stock are entitled to vote, the depositary will mail the information contained in the notice of meeting to the record holders of the depositary receipts underlying the preferred stock. Each record holder of those depositary receipts on the record date will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the amount of preferred stock underlying that holder's depositary shares. The record date for the depositary will be the same date as the record date for the preferred stock. The depositary will try, as far as practicable, to vote the preferred stock underlying the depositary shares in accordance with these instructions. We will agree to take all action that may be deemed necessary by the depositary in order to enable the depositary to vote the preferred stock in accordance with these instructions. The depositary will not vote the preferred stock to the extent that it does not receive specific instructions from the holders of depositary receipts.

Withdrawal of Preferred Stock

Owners of depositary shares will be entitled to receive upon surrender of depositary receipts at the principal office of the depositary and payment of any unpaid amount due to the depositary, the number of whole shares of preferred stock underlying their depositary shares.

Partial shares of preferred stock will not be issued. Holders of preferred stock will not be entitled to deposit the shares under the deposit agreement or to receive depositary receipts evidencing depositary shares for the preferred stock.

Amendment and Termination of Deposit Agreement

The form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement may be amended by agreement between us and the depositary. However, any amendment which materially and adversely alters the rights of the holders of depositary shares, other than fee changes, will not be effective unless the amendment has been approved by at least a majority of the outstanding depositary shares. The deposit agreement may be terminated by the depositary or us only if:

all outstanding depositary shares have been redeemed; or

there has been a final distribution of the preferred stock in connection with our dissolution and such distribution has been made to all the holders of depositary shares.

Charges of Depositary

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangement. We will also pay charges of the depositary in connection with:

the initial deposit of the preferred stock;

the initial issuance of the depositary shares;

Table of Contents

any redemption of the preferred stock; and

all withdrawals of preferred stock by owners of depositary shares.

Holders of depositary receipts will pay transfer, income and other taxes and governmental charges and other specified charges as provided in the deposit agreement for their accounts. If these charges have not been paid, the depositary may:

refuse to transfer depositary shares;

withhold dividends and distributions; and

sell the depositary shares evidenced by the depositary receipt.

Miscellaneous

The depositary will forward to the holders of depositary receipts all reports and communications we deliver to the depositary that we are required to furnish to the holders of the preferred stock. In addition, the depositary will make available for inspection by holders of depositary receipts at the principal office of the depositary, and at such other places as it may from time to time deem advisable, any reports and communications we deliver to the depositary as the holder of preferred stock.

Neither the depositary nor ION will be liable if either the depositary or ION is prevented or delayed by law or any circumstance beyond either the depositary or ION's control in performing their respective obligations under the deposit agreement. ION's obligations and the depositary's obligations will be limited to the performance in good faith of ION's or the depositary's respective duties under the deposit agreement. Neither the depositary nor ION will be obligated to prosecute or defend any legal proceeding in respect of any depositary shares or preferred stock unless satisfactory indemnity is furnished. ION and the depositary may rely on:

written advice of counsel or accountants;

information provided by holders of depositary receipts or other persons believed in good faith to be competent to give such information; and

documents believed to be genuine and to have been signed or presented by the proper party or parties.

Resignation and Removal of Depositary

The depositary may resign at any time by delivering a notice to us. We may remove the depositary at any time. Any such resignation or removal will take effect upon the appointment of a successor depositary and its acceptance of such appointment. The successor depositary must be appointed within 60 days after delivery of the notice for resignation or removal. The successor depositary must be a bank and trust company having its principal office in the United States of America and having a combined capital and surplus of at least \$150,000,000.

Table of Contents

DESCRIPTION OF WARRANTS

We may issue warrants to purchase our debt or equity securities or securities of third parties or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities and may be attached to, or separate from, such securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent. The terms of any warrants to be issued and a description of the material provisions of the applicable warrant agreement will be set forth in the applicable prospectus supplement.

DESCRIPTION OF UNITS

We may issue units consisting of one or more warrants, debt securities, shares of preferred stock, shares of common stock or any combination of such securities, as specified in the applicable prospectus supplement.

FORMS OF SECURITIES

Each debt security, warrant and unit will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depository or its nominee as the owner of the debt securities, warrants or units represented by these global securities. The depository maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Global Securities

We may issue the registered debt securities, warrants and units in the form of one or more fully registered global securities that will be deposited with a depository or its nominee identified in the applicable prospectus supplement and registered in the name of that depository or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depository for the registered global security, the nominees of the depository or any successors of the depository or those nominees.

If not described below, any specific terms of the depository arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depository arrangements:

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depository or persons that may hold interests through participants. Upon the issuance of a registered global security, the depository will credit, on its book-entry registration and transfer system, the participants accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depository, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

Table of Contents

So long as the depository, or its nominee, is the registered owner of a registered global security, that depository or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, warrant agreement or unit agreement. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement or unit agreement. Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depository for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant agreement or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement or unit agreement, the depository for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, and interest payments on debt securities, and any payments to holders with respect to warrants or units, represented by a registered global security registered in the name of a depository or its nominee will be made to the depository or its nominee, as the case may be, as the registered owner of the registered global security. Neither ION, the trustee, any warrant agent, unit agent nor any other agent of ION, agent of the trustee or agent of such warrant agent or unit agent will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depository for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other distribution of underlying securities or other property to holders of that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depository. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in street name, and will be the responsibility of those participants.

If the depository for any of these securities represented by a registered global security is at any time unwilling or unable to continue as depository or ceases to be a clearing agency registered under the Exchange Act, and a successor depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depository. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depository gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depository's instructions will be based on directions received by the depository from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depository.

PLAN OF DISTRIBUTION

We or selling security holders may sell the securities being offered hereby in the following manner or any manner specified in a prospectus supplement:

directly to purchasers;

through agents;

through underwriters; and

Table of Contents

through dealers.

If any securities are sold pursuant to this prospectus by any persons other than us, we will, in a prospectus supplement, name the selling security holders, indicate the nature of any relationship such holders have had with us or any of our affiliates during the three years preceding such offering, state the amount of securities of the class owned by such security holder prior to the offering and the amount to be offered for the security holder's account, and state the amount and (if one percent or more) the percentage of the class to be owned by such security holder after completion of the offering.

We or any selling security holder may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act and describe any commissions that we or any selling security holder must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis. Agents, dealers and underwriters may be customers of, engage in transactions with, or perform services for us or any selling security holder in the ordinary course of business.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we and, if applicable, any selling security holder will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

If a dealer is utilized in the sale of the securities in respect of which the prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

Remarketing firms, agents, underwriters and dealers may be entitled under agreements which they may enter into with us to indemnification by us and by any selling security holder against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us or any selling security holder in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities, the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

LEGAL MATTERS

Certain legal matters in connection with this offering will be passed on for us by Mayer Brown LLP, Houston, Texas. Any underwriters will be advised about other issues relating to any offering by their own legal counsel.

EXPERTS

The consolidated financial statements of ION Geophysical Corporation and subsidiaries appearing in ION Geophysical Corporation's Annual Report on Form 10-K for the year ended December 31, 2007 (as amended by Form 10-K/A filed with the SEC on March 4, 2008), including the schedule appearing therein, and the effectiveness of ION Geophysical Corporation's

Table of Contents

internal control over financial reporting as of December 31, 2007, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

The audited combined balance sheets of the ARAM Group of Companies as at December 31, 2007 and 2006 and the related audited combined statements of net income, comprehensive income and retained earnings and cash flows for the years ended December 31, 2007, 2006 and 2005, included as Exhibit 99.2 of our Form 8-K/A dated November 3, 2008 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent auditors, given on the authority of such firm as experts in auditing and accounting.

Table of Contents

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the estimated costs and expenses payable by the Registrant in connection with the sale of the securities being registered hereby.

	Amount to be Paid
Registration fee	\$ 0*
Printing and engraving fees	11,000
Legal fees and expenses (including Blue Sky fees)	56,800
Trustee fees	0
Rating agency fees	0
Accounting fees and expenses	25,000
Miscellaneous	6,000
TOTAL	\$ 98,800

* Omitted because the registration fee is being deferred pursuant to Rule 456(b).

Item 15. Indemnification of Directors and Officers

The General Corporation Law of the State of Delaware (the DGCL) permits ION and its stockholders to limit directors' exposure to liability for certain breaches of the directors' fiduciary duty, either in a lawsuit on behalf of ION or in an action by stockholders of ION. The Restated Certificate of Incorporation of ION provides that a director of ION shall not be personally liable to ION or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to ION or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit.

The Amended and Restated Bylaws (the Bylaws) of ION provide that ION shall, to the full extent permitted by applicable laws (including the DGCL), indemnify its directors, officers, employees and agents with respect to expenses (including counsel fees), judgments, fines, penalties, other liabilities and amounts incurred by any such person in connection with any threatened, pending or completed action, suit or proceeding to which such person is or was a party, or is or was threatened to be made a party, by reason of the fact that such person is or was serving as a director, officer, employee or agent of ION or any of its subsidiaries, or is or was serving at the request of ION or any of its subsidiaries as a director, officer, employee, agent or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise. The Bylaws provide that the indemnification provided pursuant to the Bylaws is not exclusive of any other rights to which those seeking indemnification may be entitled under any provision of law, certificate of incorporation, bylaws, governing documents, agreement, vote of stockholders or disinterested directors or otherwise. ION has entered into indemnification agreements with certain of its officers and directors, under which ION has agreed to indemnify such officers and directors against certain liabilities.

ION maintains a standard form of officers' and directors' liability insurance policy which provides coverage to the officers and directors of ION for certain liabilities, including certain liabilities which may arise out of this Registration Statement.

Table of Contents

Item 16. Exhibits and Financial Statement Schedules

(a) The following exhibits are filed as part of this Registration Statement:

Exhibit Number	Exhibit Description
**1.1	Form of Underwriting Agreement.
3.1	Restated Certificate of Incorporation filed as Exhibit 3.4 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 24, 2007, and incorporated herein by reference.
3.2	Amended and Restated Bylaws of the company filed as Exhibit 3.5 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 24, 2007, and incorporated herein by reference.
3.3	Certificate of Rights and Preferences of Series D-1 Preferred Stock of the company, filed as Exhibit 3.1 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 17, 2005, and incorporated herein by reference.
3.4	Certificate of Rights and Preferences of Series D-2 Preferred Stock of the company, filed as Exhibit 3.1 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2005, and incorporated herein by reference.
3.5	Certificate of Rights and Preferences of Series D-3 Preferred Stock of the company, filed as Exhibit 3.1 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 22, 2008, and incorporated herein by reference.
4.1	Specimen Certificate for shares of common stock filed as Exhibit 4.1 to the company's Registration Statement on Form S-3 filed with the Securities and Exchange Commission on December 21, 2007, and incorporated herein by reference.
**4.2	Specimen Preferred Stock Certificate.
*4.3	Form of Senior Indenture.
*4.4	Form of Senior Note (included in Exhibit 4.3).
*4.5	Form of Subordinated Indenture.
*4.6	Form of Subordinated Note (included in Exhibit 4.5).
**4.7	Form of Deposit Agreement.
**4.8	Form of Depositary Receipt (included in Exhibit 4.7).
**4.9	Form of Warrant Agreement.
**4.10	Form of Unit Agreement.

Edgar Filing: ION GEOPHYSICAL CORP - Form S-3ASR

- *5.1 Opinion of Mayer Brown LLP.
- *12.1 Computation of Consolidated Ratios of Earnings to Fixed Charges and Earnings to Combined Fixed Charges and Preferred Stock Dividends.
- *23.1 Consent of Ernst & Young LLP.
- *23.2 Consent of PricewaterhouseCoopers LLP.
- *23.3 Consent of Mayer Brown LLP (included in Exhibit 5.1).
- *24.1 Power of Attorney (included on the signature page of the Registration Statement).
- ***25.1 Statement of Eligibility of Trustee on Form T-1.

II - 2

Table of Contents

- * Filed herewith.

- ** To be filed by amendment or by a Current Report on Form 8-K pursuant to Section 601 of Regulation S-K.

- *** To be filed separately if not filed by a post-effective amendment hereto.

Table of Contents

Item 17. Undertakings

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made of securities registered hereby, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; *provided, however*, that paragraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement

Table of Contents

will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

(d) The undersigned Registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Securities and Exchange Commission under Section 305(b)(2) of the Trust Indenture Act.

Table of Contents**SIGNATURES AND POWER OF ATTORNEY**

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on December 19, 2008.

ION GEOPHYSICAL CORPORATION

By: /s/ Robert P. Peebler
 Robert P. Peebler
Chief Executive Officer and Director

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert P. Peebler, R. Brian Hanson and David L. Roland, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including any and all post-effective amendments) to this Registration Statement on Form S-3 and any registration statement for the same offering filed pursuant to Rule 462 under the Securities Act, as amended, 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, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

Name	Title	Date
/s/ Robert P. Peebler Robert P. Peebler	Chief Executive Officer and Director (Principal Executive Officer)	December 19, 2008
/s/ R. Brian Hanson R. Brian Hanson	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	December 19, 2008
/s/ Michael L. Morrison Michael L. Morrison	Vice President and Corporate Controller (Principal Accounting Officer)	December 19, 2008
/s/ James M. Lapeyre, Jr. James M. Lapeyre, Jr.	Chairman of the Board of Directors and Director	December 19, 2008
/s/ Bruce S. Appelbaum Bruce S. Appelbaum	Director	December 19, 2008
/s/ Theodore H. Elliott, Jr.	Director	December 19, 2008

Theodore H. Elliott, Jr.

/s/ Franklin Myers

Director

December 19, 2008

Franklin Myers

II - 6

Table of Contents

Name	Title	Date
/s/ S. James Nelson, Jr. S. James Nelson, Jr.	Director	December 19, 2008
/s/ John N. Seitz John N. Seitz	Director	December 19, 2008
/s/ Nick G. Vlahakis Nick G. Vlahakis	Director	December 19, 2008
/s/ G. Thomas Marsh G. Thomas Marsh	Director	December 19, 2008

Table of Contents

EXHIBIT INDEX

Exhibit Number	Exhibit Description
**1.1	Form of Underwriting Agreement.
3.1	Restated Certificate of Incorporation filed as Exhibit 3.4 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 24, 2007, and incorporated herein by reference.
3.2	Amended and Restated Bylaws of the company filed as Exhibit 3.5 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 24, 2007, and incorporated herein by reference.
3.3	Certificate of Rights and Preferences of Series D-1 Preferred Stock of the company, filed as Exhibit 3.1 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 17, 2005, and incorporated herein by reference.
3.4	Certificate of Rights and Preferences of Series D-2 Preferred Stock of the company, filed as Exhibit 3.1 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2005, and incorporated herein by reference.
3.5	Certificate of Rights and Preferences of Series D-3 Preferred Stock of the company, filed as Exhibit 3.1 to the company's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 22, 2008, and incorporated herein by reference.
4.1	Specimen Certificate for shares of common stock filed as Exhibit 4.1 to the company's Registration Statement on Form S-3 filed with the Securities and Exchange Commission on December 21, 2007, and incorporated herein by reference.
**4.2	Specimen Preferred Stock Certificate.
*4.3	Form of Senior Indenture.
*4.4	Form of Senior Note (included in Exhibit 4.3).
*4.5	Form of Subordinated Indenture.
*4.6	Form of Subordinated Note (included in Exhibit 4.5).
**4.7	Form of Deposit Agreement.
**4.8	Form of Depositary Receipt (included in Exhibit 4.7).
**4.9	Form of Warrant Agreement.
**4.10	Form of Unit Agreement.
*5.1	Opinion of Mayer Brown LLP.

- *12.1 Computation of Consolidated Ratios of Earnings to Fixed Charges and Earnings to Combined Fixed Charges and Preferred Stock Dividends.
- *23.1 Consent of Ernst & Young LLP.
- *23.2 Consent of PricewaterhouseCoopers LLP.
- *23.3 Consent of Mayer Brown LLP (included in Exhibit 5.1).
- *24.1 Power of Attorney (included on the signature page of the Registration Statement).
- ***25.1 Statement of Eligibility of Trustee on Form T-1.
- * Filed herewith.
- ** To be filed by amendment or by a report on Form 8-K pursuant to Section 601 of Regulation S-K.
- *** To be filed separately if not filed by an amendment hereto.