

GENERAL GEOPHYSICS CO

Form 20-F

May 14, 2003

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Compagnie Générale de Géophysique  
Annual Report 2002  
Form 20-F

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**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 20-F**

REGISTRATION STATEMENT PURSUANT TO SECTION 12(B) OR (G)  
OF THE SECURITIES EXCHANGE ACT OF 1934

OR

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

For the Fiscal Year Ended December 31, 2002

OR

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

For the Transition Period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number \_\_\_\_\_

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**Compagnie Générale de Géophysique**

*(Exact name of registrant as specified in its charter)*

**General Company of Geophysics**

*(Translation of registrant's name into English)*

**Republic of France**

*(Jurisdiction of incorporation or organization)*

**1, rue Léon Migaux**

**91341 Massy**

**France**

**(33) 1 64 47 3000**

*(Address of principal executive offices)*

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Securities registered or to be registered pursuant to Section 12(b) of the Act.

**Title of each class**

**Name of each exchange on which registered**

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**American Depositary Receipts representing  
Ordinary Shares, nominal value 2 per share**

**New York Stock Exchange**

Securities registered or to be registered pursuant to Section 12(g) of the Act.

**None**

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(Title of class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

**10 5/8% Senior Notes due 2007**

(Title of class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

**11,680,718 Ordinary Shares, nominal value 2 per share**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes

No

Indicate by check mark which financial statement item the registrant has elected to follow.

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**PRESENTATION OF INFORMATION**

In this annual report, references to United States or U.S. are to the United States of America, references to U.S. dollars, \$ or U.S.\$ are to United States dollars, references to France are to the Republic of France, and references to Euro or are to the single currency introduced at the start of the third stage of European Economic and Monetary Union pursuant to the Treaty Establishing the European Union.

We present our consolidated financial statements in euro. We presented our consolidated financial statements in French francs for periods through December 31, 2000; however, we have adopted the euro as our reporting currency for the periods after January 1, 2001. We have restated our 2000 annual consolidated financial statements in euro at the fixed exchange rate of 1.00 = FF 6.55957. Although these statements depict the same trends as would have been shown had they been presented in French francs, they may not be directly comparable to the financial statements of other companies originally reported in a currency other than the French franc and subsequently restated in euro. Prior to the adoption of the euro, the currencies of other countries fluctuated against the French franc, but because the euro did not exist prior to January 1, 1999, historical exchange rates for euro are not available. A comparison of our financial statements and those of another company that had historically used a reporting currency other than the French franc that takes into account actual fluctuations in exchange rates could be materially different from a comparison of our financial statements and those of another company as translated into euro.

As CGG is listed on the New-York Stock Exchange (American Depositary Shares), we have to file on Form 20F with the SEC our annual financial statements reconciled with the accounting principles generally accepted in the United States ( U.S. GAAP ).

For the year ended December 31, 2000 there were no material differences between French GAAP and U.S. GAAP. Beginning with the financial statements for fiscal year 2001, French GAAP differs in certain significant respects from U.S. GAAP.

The differences between French GAAP and U.S. GAAP as they relate to the Group, and the reconciliation of net income and shareholders equity to U.S. GAAP are described in note 27 to our consolidated financial statements.

Unless otherwise indicated, statements in this annual report relating to market share, ranking and data are derived from management estimates based, in part, on independent industry publications, reports by market research firms or other published independent sources. Any discrepancies in any table between totals and the sums of the amounts listed in such table are due to rounding.

As used in this annual report CGG , we , us and our means Compagnie Générale de Géophysique and its subsidiaries, except as otherwise indicated.

**FORWARD-LOOKING STATEMENTS**

This annual report includes forward-looking statements, including, without limitation, certain statements made in the sections entitled Business and Operating and Financial Review and Prospects. We have based these forward-looking statements on our current views and assumptions about future events.

These forward-looking statements are subject to risks, uncertainties and assumptions we have made, including, among other things:

changes in international economic and political conditions, and in particular in oil and gas prices;

our ability to reduce costs;

our ability to finance our operations on acceptable terms;

the timely development and acceptance of our new products and services;

the effects of competition;

political, legal and other developments in foreign countries;

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the timing and extent of changes in exchange rates for non-U.S. currencies and interest rates;

the accuracy of our assessment of risks related to acquisitions, projects and contracts, and whether these risks materialize;

our ability to integrate successfully the businesses or assets we acquire;

our ability to sell our seismic data library;

our ability to access the debt and equity markets during the periods covered by the forward-looking statements, which will depend on general market conditions and on our credit ratings for our debt obligations; and

our success at managing the risks of the foregoing.

We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this annual report might not occur.

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**PART I**

**Item 1: IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**Item 2: OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**Item 3: KEY INFORMATION**

**Selected Financial Data**

The table below sets forth selected consolidated financial and operating data as of and for each of the five years in the period ended December 31, 2002, which should be read in conjunction with, and is qualified in its entirety by reference to, our consolidated financial statements and Operating and Financial Review and Prospects included elsewhere in this annual report. The selected financial data for each of the years in the five-year period ended December 31, 2002 have been derived from our audited consolidated financial statements prepared in accordance with French generally accepted accounting principles ( **GAAP** ), which differ in certain respects from U.S. GAAP.

As CGG is listed on the New-York Stock Exchange (American Depositary Shares), we have to file on Form 20F with the SEC our annual financial statements reconciled with the accounting principles generally accepted in the United States ( **U.S. GAAP** ).

For the year ended December 31, 2000 there were no material differences between French GAAP and U.S. GAAP. Beginning with the financial statements for fiscal year 2001, French GAAP differs in certain significant respects from U.S. GAAP.

The differences between French GAAP and U.S. GAAP as they relate to the Group, and the reconciliation of net income and shareholders equity to U.S. GAAP are described in note 27 to our consolidated financial statements.

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	As of and for the year ended December 31,				
	2002	2001	2000	1999	1998
	(in millions, except per share and Operating Data)				
<b>Statement of Operations Data:</b>					
<i>Amounts in accordance with French GAAP:</i>					
Operating revenues	700.7	802.9	695.3	506.7	623.0
Cost of operations	(531.4)	(641.7)	(579.9)	(460.9)	(492.1)
Gross profit	169.3	161.2	115.4	45.8	130.9
Research and development expenses, net	(27.1)	(35.3)	(26.9)	(24.6)	(27.2)
Selling, general and administrative expenses ( <i>excluding goodwill amortization</i> )	(86.7)	(84.8)	(83.2)	(78.3)	(69.9)
Other revenues (expenses)	6.1	13.7	13.5	2.4	(38.5)
Operating income (loss)	61.6	54.8	18.8	(54.7)	(4.7)
Interest and other financial income and expense, net	(32.6)	(23.0)	(15.9)	(9.6)	(5.0)
Exchange gains (losses), net	7.9	(1.4)	(5.8)	(3.4)	(3.8)
Equity in income (losses) of investees	6.4	8.8	2.6	0.7	(0.6)
Income (loss) before income taxes and minority interest	43.3	39.2	(0.3)	(67.0)	(14.1)
Income taxes	(17.4)	(16.8)	(10.6)	(7.8)	(9.1)
Goodwill amortization	(6.3)	(6.5)	(4.7)	(1.4)	(9.2)
Minority interest	(2.2)	(0.2)	3.6	9.7	(4.6)
Net income (loss)	17.4	15.7	(12.0)	(66.5)	(37.0)
Per share amounts: Basic <sup>(1)</sup>	1.49	1.35	(1.28)	(12.51)	(7.30)
Diluted <sup>(2)</sup>	1.49	1.35	(1.28)	(12.51)	(7.30)
<i>Amounts in accordance with U.S. GAAP:</i>					
Operating revenues	719.0	795.0	695.3	506.7	623.0
Operating income (loss)	81.9	48.6	14.1	(56.1)	(13.9)
Net income (loss)	15.1	9.3	(12.0)	(66.5)	(37.0)
Per share amounts: Basic <sup>(1)</sup>	1.29	0.80	(1.28)	(12.51)	(7.30)
Diluted <sup>(2)</sup>	1.29	0.80	(1.28)	(12.51)	(7.30)
<b>Balance Sheet Data:</b>					
<i>Amounts in accordance with French GAAP:</i>					
Cash and cash equivalents	116.6	56.7	60.1	64.5	30.0
Working capital <sup>(3)</sup>	170.9	191.8	180.3	86.8	71.1
Property, plant and equipment, net	265.0	280.7	140.7	160.6	144.0
Multi-client data library	127.1	91.9	77.5	55.2	23.8
Total assets	1,024.7	1,014.4	839.3	685.5	508.4
Total long-term debt <sup>(4)</sup>	307.8	279.5	251.8	156.5	95.2
Shareholders' equity	437.5	462.8	320.7	269.5	166.9
<i>Amounts in accordance with U.S. GAAP:</i>					
Total assets	1,036.8	1,008.0	839.3	685.5	508.4
Total long-term debt <sup>(5)</sup>	307.8	279.5	251.8	156.5	95.2
Shareholders' equity	431.0	456.4	320.7	269.5	166.9
<b>Other Historical Financial Data and Ratios:</b>					
<i>Amounts derived from French GAAP data:</i>					
EBITDA <sup>(5)</sup>	208.1	189.5	146.7	33.9	112.2
Adjusted EBITDA <sup>(6)</sup>	210.1	200.5	150.5	37.6	107.4
Adjusted EBITDA/ Net interest expense	7.4x	8.7x	9.5x	3.9x	21.5x
Capital expenditures	130.6	55.0	39.5	57.1	89.1
Investments in multi-client data library	130.1	78.8	92.5	56.8	33.8
Ratio of earnings to fixed charges <sup>(7)</sup>	2.2x	2.0x			

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	As of and for the year ended December 31,				
	2002	2001	2000	1999	1998
	(in millions, except per share and Operating Data)				
<i>Amounts derived from U.S. GAAP data:</i>					
EBITDA <sup>(5)</sup>	228.4	191.4	146.7	33.9	112.2
<b>Operating Data (at end of period):</b>					
Land crews in operation	14	12	20	16	24
Streamers in operation	42	48	30	27	18
Data processing centers in operation	26	26	25	22	19

- (1) Basic per share amounts have been calculated on the basis of 11,680,718 issued and outstanding shares in 2002, 11,609,393 issued and outstanding shares in 2001, 9,389,214 issued and outstanding shares in 2000, 5,314,905 issued and outstanding shares in 1999 and 5,069,948 issued and outstanding shares in 1998.
- (2) Diluted per share amounts have been calculated on the basis of 11,680,718 issued and outstanding shares in 2002, 11,609,393 issued and outstanding shares in 2001, 9,485,053 issued and outstanding shares in 2000, 5,330,652 issued and outstanding shares in 1999 and 5,226,115 issued and outstanding shares in 1998. In 2001, the effects of stock options were not dilutive (treasury stock method).
- (3) Consists of trade accounts and notes receivable, inventories and work-in-progress and other current assets less trade accounts and notes payable, accrued payroll costs, income tax payable, advance billings to customers and other current liabilities.
- (4) Total long-term debt means total long-term debt, including current maturities, capital leases and accrued interest.
- (5) EBITDA is defined as operating income (loss) excluding non-recurring revenues (expenses) plus depreciation and amortization. EBITDA is presented as additional information because we understand that it is one measure used by certain investors to determine our operating cash flow and historical ability to meet debt service and capital expenditure requirements. However, other companies may present EBITDA differently than we do. EBITDA is not a measure of financial performance under French GAAP or U.S. GAAP and should not be considered as an alternative to cash flow from operating activities or as a measure of liquidity or an alternative to net income as indicators of our operating performance or any other measures of performance derived in accordance with French GAAP or U.S. GAAP.
- (6) Adjusted EBITDA is defined as operating income (loss) excluding non-recurring revenues (expenses) plus depreciation, amortization and additions (deductions) to valuation allowances of assets and add-back of dividends received from equity companies.
- (7) The term earnings is the amount of pre-tax income from continuing operations before adjustment for minority interests in consolidated subsidiaries or income or loss from equity investees, plus fixed charges, plus amortization of capitalized interest, plus distributed income to equity investees, plus the share of pre-tax losses of equity investees for which charges arising from guarantees are included in fixed charges, less interest capitalized, less preference security dividend requirements of consolidated subsidiaries, less the minority interest in pre-tax income of subsidiaries that have not incurred fixed charges. The term fixed charges means the sum of the following: (a) interest expensed or capitalized, (b) amortized premiums, discounts and capitalized expenses related to indebtedness, (c) an estimate of the interest within rental expense, and (d) preference security dividend requirements of consolidated subsidiaries. The term preference security dividend is the amount of pre-tax earnings that is required to pay the dividends on outstanding preference securities, computed as the amount of the dividend divided by one minus the effective income tax rate applicable to continuing operations. The deficiency of earnings to fixed charges was 7.6 million for the year ended December 31, 2000, 69.1 million for the year ended December 31, 1999 and 22.7 million for the year ended December 31, 1998.

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Under the Treaty on European Union negotiated at Maastricht, The Netherlands, in 1991 (the Maastricht Treaty ) and signed by the then 12 EU Member States in early 1992, the European Monetary Union (the EMU ), with a single European currency under the monetary control of the European Central Bank, was introduced. On January 1, 1999, the last stage of the EMU came into effect with the adoption of fixed exchange rates between national currencies and the euro. On January 1, 2002, the euro became the official currency of the following 12 EU Member States: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal and Spain. As a result, national currencies (including the French franc) ceased to exist during the first quarter of 2002, after transition periods during which national currencies of such Member States and the euro co-existed.

The establishment of the EMU may have a significant effect on the economies of the participant countries. Whereas the introduction of the euro has eliminated exchange rate risks in respect of the currencies of those member states that have adopted the euro, there can be no assurance as to the relative strength of the euro against other currencies.

**Exchange Rates**

The following table sets forth, for the periods and dates indicated, certain information concerning the exchange rates for the French franc for the years 1997 and 1998, expressed in French francs per U.S. dollar, and for the euro since 1999, expressed in U.S. dollars per euro. Information concerning the U.S. dollar exchange rate is based on the noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the Noon Buying Rate ). Such rates are provided solely for convenience and no representation is made that French francs or euro were, could have been, or could be, converted into U.S. dollars at these rates or at any other rate. Such rates were not used by us in the preparation of our audited consolidated financial statements included elsewhere in this annual report. The Noon Buying Rate on May 9, 2003 was U.S.\$1.15 per euro.

U.S. dollar translations included for convenience throughout this annual report for dates other than the last day of the periods presented above have been made at the Noon Buying Rates on such dates.

Year ended December 31,	French francs				Euro			
	Period-end	High	Low	Average <sup>(1)</sup>	Period-end	High	Low	Average <sup>(1)</sup>
1997	6.02	6.35	5.19	5.85				
1998	5.59	6.21	5.39	5.90				
1999					1.01	1.18	1.00	1.06
2000					0.94	1.03	0.83	0.92
2001					0.89	0.95	0.84	0.90
2002					1.05	1.05	0.86	0.95
<b>Month</b>								
October 2002					0.99	0.99	0.97	0.98
November 2002					0.99	1.01	0.99	1.00
December 2002					1.05	1.05	0.99	1.02
January 2003					1.07	1.08	1.04	1.06
February 2003					1.08	1.08	1.07	1.07
March 2003					1.09	1.11	1.05	1.08

(1) The average rate is the average of the Noon Buying Rates on the last day of each month in the period.

**Capitalization and Indebtedness**

Not applicable.



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**Reasons for the Offer and Use of Proceeds**

Not applicable.

**Risk Factors**

**We depend on capital expenditures by the oil and gas industry and reductions in such expenditures have had, and may continue to have, a material adverse impact on our business.**

Demand for our products and services has historically been dependent upon the level of capital expenditures by oil and gas companies for exploration, production and development activities. These expenditures are significantly influenced by oil and gas prices. Oil and gas prices may fluctuate based on relatively minor changes in the supply and demand for oil and gas and certain other factors beyond our control. Lower or volatile oil and gas prices tend to limit the demand for our services and products.

Factors affecting the prices of oil and gas include:

level of demand for oil and gas;

worldwide political, military and economic conditions, including the ability of the Organization of Petroleum Exporting Countries (OPEC) to set and maintain production levels and prices for oil;

level of oil and gas production;

policies of governments regarding the exploration for and production and development of oil and gas reserves in their territories; and

global weather conditions.

The markets for oil and gas historically have been volatile and are likely to continue to be so in the future.

Historically, there has been an average lag of six months between recovery in the market for petroleum products and implementation by oil companies of projects requiring seismic services. The significant decline in crude oil prices that began in 1998 caused a substantial decline in demand for our products and services in 1998 and 1999 and materially adversely affected our results of operations for 1998 and 1999. While oil and gas prices have risen since mid-1999, we did not experience a significant increase in demand for our products and services until the fourth quarter of 2000. Since then, demand for seismic services has gradually increased, despite the economic slowdown and lower energy demand of late 2001. Furthermore, the events of September 11, 2001 have created significant uncertainty in the current outlook. In addition to the human toll that was exacted, the events of September 11, 2001 have exacerbated a recent weakening in the global economy that could potentially have an adverse effect on our industry. The dynamics of the global oil and gas market could be further unsettled as the political reaction to September 11, 2001 and, more recently, the military operations in Iraq may possibly affect the Middle Eastern producing region, an area in which we are particularly active. Any sustained decrease in worldwide oil and gas demand and prices could reduce exploration and development activities and negatively affect our operations. We cannot assure you as to future oil and gas prices or the resulting level of industry spending for exploration, production and development activities.

**We have had operating losses in the past and we cannot assure you that we will be profitable in the future.**

We recorded net losses each year from 1998 to 2000. In 2001 and 2002, we recorded a net income of approximately 16 million and 17 million respectively, marking a return to profitability. We have taken measures designed to respond to the circumstances existing in the industry underlying prior year losses; however, we cannot assure you that the implementation of these actions will be effective in maintaining profitability in future years.

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

Most of our contracts are obtained through a competitive bidding process, which is standard for the industry in which we operate. While no single company competes with us in all of our segments, we are subject to intense competition with respect to each of our segments. We compete with large, international companies as well as smaller, local companies. In addition, we compete with major service providers and government-sponsored enterprises and affiliates. Some of our competitors operate more data acquisition crews than we do and have substantially greater financial and other resources. These and other competitors may be better positioned to withstand and adjust more quickly to volatile market conditions, such as fluctuations in oil and gas prices and production levels, and changes in government regulations.

**We rely on significant customers, so the loss of a single or a few customers could have a material adverse impact on our business.**

A relatively small number of clients account for a significant percentage of our revenues. During 2000, our two largest clients accounted for 8.3% and 8.0%, respectively, of our operating revenues. During 2001, our three largest clients accounted for 7.7%, 7.5% and 5.2% of our operating revenues, respectively. During 2002, our two largest clients accounted for 7.6%, and 7.1% of our operating revenues, respectively. If we were to lose a substantial amount of the business of any of these clients, this could have a material adverse effect on our operating revenues.

**Our land and marine seismic acquisition activities are seasonal in nature.**

Our land and marine seismic acquisition activities are seasonal in nature. We generally experience decreased revenues in the first quarter of each year due to the effects of weather conditions in the Northern Hemisphere and to the fact that our principal clients are generally not prepared to fully commit their annual exploration budget to specific projects during that period.

We have historically experienced higher levels of activity in our equipment manufacturing operations in the fourth quarter as our clients seek to fully deploy annual budgeted capital.

**Our debt agreements may limit our ability to respond to changes in market conditions or to pursue business opportunities.**

As of December 31, 2002, we had 290 million of long-term debt outstanding and total shareholders' equity of 438 million. We may need to borrow additional amounts in the future to meet our anticipated working capital and capital expenditure needs. Our syndicated credit facility imposes operating and financial restrictions on our business. These provisions include limitations on our ratios of net debt to equity and net debt to EBITDA and require us to maintain minimum levels of net worth. In addition, certain of these provisions grant liens on our accounts receivable and those of our subsidiary, Sercel S.A. Our 10 5/8% senior notes also contain restrictive covenants, including restrictions on payments and investments, the incurrence of indebtedness, the creation of liens, the entry into sale and leaseback transactions, the issuance and sale of subsidiary stock and the payment of dividends and other payments by certain of our subsidiaries. Many of the restrictions contained in these covenants depend on our ability to meet certain ratios and tests with respect to consolidated interest coverage, total assets and net income. These provisions may negatively affect our ability to react to changes in market conditions, take advantage of business opportunities we believe to be desirable, obtain future financing, funds needed capital expenditures, significantly increase research and development expenditures, or withstand a continuing or future downturn in our business.

**If we are unable to comply with the restrictions and covenants in our debt agreements, there could be a default under the terms of these agreements, which could result in an acceleration of payment of funds that we have borrowed.**

If we are unable to comply with the restrictions and covenants in our current or future debt agreements, there would be a default under the terms of these agreements. Our ability to meet our financial ratios and tests may be

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affected by events beyond our control. As a result, we cannot assure you that we will be able to meet these tests. In the event of a default under these agreements, our lenders could terminate their commitments to lend to us or accelerate the loans and declare all amounts borrowed due and payable. Borrowings under other debt instruments that contain cross-acceleration or cross-default provisions may also be accelerated and become due and payable. If any of these events occur, we cannot assure you that our assets would be sufficient to repay in full all of our indebtedness, including the notes, or that we would be able to find alternative financing. Even if we could obtain alternative financing, we cannot assure you that it would be on terms that are favorable or acceptable to us.

**We invest significant amounts of money in acquiring and processing seismic data for multi-client surveys and for our data library without knowing precisely how much of the data we will be able to sell or when and at what price we will be able to sell the data.**

We invest significant amounts in acquiring and processing seismic data that we own. By making such investments, we assume the risk that:

we may not fully recover the costs of the data through future sales. The amounts of these data sales are uncertain and depend on a variety of factors. Many of these factors are beyond our control. In addition, the timing of these sales can vary greatly from period to period. Technological or regulatory changes or other developments could also adversely affect the value of the data;

the value of our multi-client data could be significantly adversely affected if any material adverse change occurred in the general prospects for oil and gas exploration, development and production activities in the areas where we acquire multi-client data; and

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

**We have high levels of fixed costs that will be incurred regardless of our level of business activity.**

Our business has high fixed costs, and downtime or low productivity due to reduced demand, weather interruptions, equipment failures or other causes can result in significant operating losses.

**Technological changes and new products and services are frequently introduced in our market, and our technology could be rendered obsolete by these introductions or we may not be able to develop and produce new and enhanced products on a cost-effective and timely basis.**

Technology changes rapidly, and new and enhanced products are frequently introduced in the market for our products and services, particularly in our equipment manufacturing and data processing and geoscience sectors. Our success depends to a significant extent upon our ability to develop and produce new and enhanced products and services on a cost-effective and timely basis in accordance with industry demands. While we commit substantial resources to research and development, we cannot assure you that we will not encounter resource constraints or technical or other difficulties that could delay our introduction of new and enhanced products and services in the future. In addition, our continuing development of new products inherently carries the risk of obsolescence with respect to our older products. We cannot assure you that new and enhanced products and services, if introduced, will gain market acceptance or will not be adversely affected by technological changes or product or service introductions.

**We depend on attracting and retaining qualified employees to protect our business know-how.**

Our results of operations depend in part upon our business know-how. We believe that protection of our know-how depends in large part on our ability to attract and retain highly skilled and qualified personnel. Any inability of ours in the future to hire, train and retain a sufficient number of qualified employees could impair our ability to manage and maintain our business and to protect our know-how.



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**We depend on proprietary technology.**

Our results of operations depend in part upon our proprietary technology. We rely on a combination of patents, trademarks and trade secret laws to establish and protect our proprietary technology. In addition, we enter into confidentiality and license agreements with our employees, customers and potential customers and limit access to and distribution of our technology. However, we cannot assure you that actions we take to protect our proprietary rights will be adequate to deter the misappropriation or independent third party development of our technology. Although we have not been involved in any material litigation regarding our intellectual property rights or the possible infringement of intellectual property rights of others, we cannot assure you that such litigation will not be brought in the future. In addition, the laws of certain foreign countries do not protect proprietary rights to the same extent as either the laws of France or the laws of the United States.

**We are subject to risks related to our international operations that could harm our business and results of operations.**

With operations worldwide, and with a majority of our revenues derived outside of the United States and Western Europe, including emerging markets, our business and results of operations are subject to various risks inherent in international operations. These risks include:

instability of foreign economies and governments;

risks of war, seizure, renegotiation or nullification of existing contracts; and

foreign exchange restrictions, laws and other policies affecting trade and investment.

While we carry insurance against political risks associated with such operations, in amounts we consider appropriate in accordance with industry practices, we cannot assure you that we will not be subject to material adverse developments with respect to our international operations.

**The nature of our business is subject to significant ongoing operating risks for which we may not have adequate insurance or for which we may not be able to procure adequate insurance on economical terms, if at all.**

Our seismic data acquisition activities, particularly in deepwater marine areas, are often conducted under harsh weather and other hazardous conditions and are subject to risks of loss from business interruption, delay or equipment destruction. We carry insurance against the destruction of or damage to our seismic equipment and against business interruption for our data processing activities in amounts we consider appropriate in accordance with industry practice. However, we cannot assure you that our insurance coverage will be adequate in all circumstances or against all hazards, or that we will be able to maintain adequate insurance coverage in the future at commercially reasonable rates or on acceptable terms.

**Our results of operations can be significantly affected by currency fluctuations.**

Our operations can be significantly affected by fluctuations in exchange rates, particularly between the euro and the U.S. dollar. We incur a large portion of our operating expenses in currencies other than the currency in which corresponding net sales are generated. In particular, we incur substantial euro operating costs while a substantial majority of our net sales are U.S. dollar-denominated. Appreciation of the euro versus the U.S. dollar makes us less competitive, because our operating costs increase, while depreciation of the euro versus the U.S. dollar makes us more competitive. In addition, for financial reporting purposes, the appreciation of the euro against the U.S. dollar adversely affects our reported results of operations since U.S. dollar-denominated earnings that are converted to euro are stated at a reduced value. While we attempt to reduce the risks associated with such exchange rate fluctuations through our hedging policy, we cannot assure you that we will be effective or that fluctuations in the value of the currencies in which we operate will not materially affect our results in the future.

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**Our working capital needs are difficult to forecast and may be subject to significant and rapid increases which could result in additional financing requirements that we may not be able to obtain at all or on satisfactory terms.**

It is difficult for us to predict with certainty our working capital needs. This is due primarily to working capital requirements related to our marine seismic acquisition business and related to the development and introduction of new lines of geophysical equipment products. We may therefore be subject to significant and rapid increases in our working capital needs that we may have difficulty financing on satisfactory terms or at all due to limitations in our existing debt agreements.

**Our substantial debt could adversely affect our financial health and prevent us from fulfilling our obligations.**

We have a significant amount of debt. As of December 31, 2002, our total consolidated long-term debt, consolidated total assets and shareholders equity were 290 million, 1.025 billion and 438 million, respectively. Although our ratio of earnings to fixed charges was 2.2 for the year ended December 31, 2002 and 2.0 for the year ended December 31, 2001, earnings before fixed charges were inadequate to cover fixed charges by approximately 8 million for the year ended December 31, 2000. We cannot assure you we will be able to generate earnings to cover fixed charges in future years.

Our substantial debt could have important consequences to you. For example, it could

increase our vulnerability to general adverse economic and industry conditions;

require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;

limit our flexibility in planning for, or reacting to, changes in our businesses and the industries in which we operate;

place us at a competitive disadvantage compared to our competitors that have less debt; and

limit, along with the financial and other restrictive covenants of our indebtedness, among other things, our ability to borrow additional funds.

Failing to comply with restrictive covenants in our loan agreements or the indenture relating to our senior notes could result in an event of default that, if not cured or waived, could have a material adverse effect on us.

**Despite current debt levels, we and our subsidiaries may still be able to incur substantially more debt.**

We and our subsidiaries may be able to incur substantial additional debt (including secured debt) in the future. As of December 31, 2002, we had no outstanding borrowings under our syndicated credit facility and availability of 64,575,000 under all credit facilities. If new debt is added to our and our subsidiaries current debt levels, the related risks that we, and they, now face could intensify.

**Our results could be affected by changes in interest rates.**

Our sources of liquidity include credit facilities with financial institutions charging variable interest rates over the course of draw-down periods of from one to twelve months. As a result, our interest expenses could increase if short term interest rates increase. However, our exposure to interest rate fluctuations is reduced to the extent that 70.5% of our financial debt at December 31, 2002 consisted of senior notes maturing in November 2007 and bearing a fixed interest rate. A large part of the our sources of liquidity also consists of long term credit facilities and capital leases of various durations with fixed interest rates.

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### **Item 4: INFORMATION ON THE COMPANY**

#### **History and Development of the Company**

We were established in 1931 to market geophysical techniques for appraising underground geological resources. Since that time we have gradually come to specialize in seismic techniques adapted to exploration for and production of oil and gas, while continuing to carry on other geophysical activities. Compagnie Générale de Géophysique is the parent company of the CGG group. We are a *société anonyme* incorporated under the laws of the Republic of France and operating under the French *Code de commerce*. Our registered office is 1, rue Léon Migaux, 91341 Massy, France. Our telephone number is (33) 1 64 47 3000.

Over the course of the last three years, we completed numerous acquisitions and dispositions which are described under Operating and Financial Review and Prospects Acquisitions and Dispositions in Item 5, and elsewhere in this annual report.

On February 8, 2002, we issued \$55 million aggregate principal amount of 10 5/8% Senior Notes due 2007 in the international capital markets, a re-opening of a U.S.\$170 million issuance of 10 5/8% Senior Notes due 2007 on November 22, 2000. We used the approximately U.S.\$52.5 million of net proceeds to repay approximately \$22 million of outstanding indebtedness under our existing syndicated credit facility and to repay approximately \$10 million in other long-term revolving debt. We used the balance for general corporate purposes.

For a description of our principal capital expenditures, please see Item 5.

#### **Business Overview**

We are a leading international provider of geophysical services and a leading manufacturer of geophysical equipment. We provide geophysical services principally to oil and gas companies that use seismic imaging to help explore for, develop and manage oil and gas reserves by:

identifying new areas where subsurface conditions are favorable for the accumulation of oil and gas;

determining the size and structure of previously identified oil and gas fields; and

optimizing development and production of oil and gas reserves (reservoir management).

We sell our geophysical equipment primarily to other geophysical service companies.

Our operations are organized into two main segments: Services and Products. Services accounted for 72% and Products accounted for 28% of our consolidated revenues for the year ended December 31, 2002. We generate revenues on a worldwide basis. For the year ended December 31, 2002, 41% of our consolidated revenues were from the Americas, 26% from the Middle East and the Asia-Pacific region, 17% from Europe and CIS, and 16% from Africa.

#### **Industry Conditions**

Overall demand for geophysical services is dependent upon spending by oil and gas companies for exploration, production, development and field management activities. This spending depends in part on present and expected future oil and gas prices. Oil and gas prices increased significantly from mid-1999 through 2000, resulting in a modest increase in spending on geophysical services by our clients. In early 2001, economic conditions in Europe and the United States began to deteriorate, and oil and gas prices declined. The events of September 11, 2001 compounded the worsening economic climate. These conditions, in turn, resulted in a reduction in energy demand and downward pressure on energy prices, particularly gas in North America. Nevertheless, the seismic industry market continued its recovery, albeit at a slower rate. We believe that this resilience resulted in particular from the need by the oil and gas industry to replace reserves (which are currently being depleted at a rate estimated by industry analysts at 5 to 10% per year).

The worsening geopolitical climate which prevailed during the second half of 2002 caused a perception of potential oil and gas shortages in the overall economy, which in turn caused oil and gas prices to rise.



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Nevertheless, as a result of a growth in economic uncertainty, the increase in prices did not have a positive impact on our industry.

The oil and gas industry has increasingly relied on the use of 3D seismic data, which has fueled the growth in demand for geophysical services. The greater precision and improved subsurface resolution obtainable from 3D seismic data, combined with advanced processing techniques, have assisted oil and gas companies in finding new fields and more accurately delineating existing fields. These improved technologies have been key factors in improving drilling success ratios and lowering finding and field extension costs. Advanced 4D technology (using time as the fourth dimension) is also enhancing production monitoring methodologies and the management of existing oil and gas reservoirs by recording fluid movement in the reservoir. In addition, advances in technology have significantly reduced the size, weight, cost and power requirements of seismic data acquisition systems and increased the quality and quantity of data available to geoscientists. These improved technologies, coupled with advances in drilling and completion techniques, are significantly enhancing the ability of oil and gas companies to explore for, develop and manage oil and gas reserves cost-effectively.

**Business Strategy**

We intend to continue to strengthen our competitive position in the global geophysical services and products markets by capitalizing on growth opportunities resulting from both the application of new technologies in every sector of our business from exploration to production and reservoir management and from our diversified geographic presence.

To achieve our objective we have adopted the following strategies:

***Focus on Growth Areas for Geophysical Services***

We believe that the continued enhancement of our proprietary seismic data recording equipment and software will help us to remain among the leading providers of 3D land seismic surveys. We believe that our proprietary equipment and software provide us with a competitive advantage in specific growth markets, such as data acquisition in transition zones and difficult terrain, where recent technological advances have made seismic acquisition more feasible. We intend to focus on developing our technological capabilities in emerging markets for geophysical services, such as reservoir appraisal and production monitoring. We believe that, due to our extensive international experience, we also have a competitive advantage in certain geographic markets such as Europe, Africa, the Middle East and Latin America, where we have been operating longer than many of our competitors. We also believe that we have unique experience and expertise in complex land acquisition projects, a market that we expect may grow within the next several years.

To continue developing our marine acquisition services and to strengthen our position in this market segment, we significantly upgraded our fleet capacity with the launch in 1999 of the *CGG Alizé* and the acquisition in January 2001 of two marine seismic vessels from Aker. We improved our capacity with a technological upgrade of the *CGG Mistral*, completed in the first half of 2002, but in December 21, 2002, the *Mistral* sank, after an accidental fire broke out onboard. See [Offshore SBU](#) .

We intend to strengthen our position in the marine seismic market for non-exclusive data by further developing our non-exclusive data library. We believe that a strong position in this market segment is vital to enhance further our global competitive position, as it will assist us to adapt to current market demand and may provide opportunities for significant future sales. Our policy is to develop our non-exclusive data library, while carefully selecting survey opportunities in order to monitor our investment closely.

Given the growing importance of geophysics in reservoir characterization, we intend to further develop the synergies between our data processing and reservoir services. This approach places us in a better position to meet the requirements of our clients with an extensive range of integrated services. We also intend to increase our processing capability in developing disciplines, such as lithology prediction (identification of the rock layers covering and surrounding the oil trap), as well as applications relating to reservoir description and monitoring, including 3D pre-stack depth imaging, multi-component and 4D studies. We also plan to continue promoting and developing our dedicated processing center services within our clients' offices.

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***Develop Technological Synergies for Products and Capitalize on New Generation Equipment***

Sercel is the leading producer of land, marine and subsea geophysical equipment. We plan to continue developing synergies among the technologies available within Sercel and to capitalize fully on our position as a market leader. Through internal expenditures on research and development, we seek to improve existing products and maintain an active new product development program in all segments of the geophysical equipment market (land, marine and ocean-bottom).

***Develop and Utilize Innovative Technology***

We believe that growth in demand for geophysical services will continue to be driven by the development of new technologies. We expect multi-component (3C/4C) surveys and time-lapse (4D) surveys to become increasingly important for new production-related applications, particularly in the marine sector, and expect specialized recording equipment for difficult terrain to become more important in land seismic data acquisition. We believe that to remain competitive, geophysical services companies will need to combine advanced data acquisition technology with consistently improving processing capacity in order to reduce further delivery times for seismic services. Our strategy is to take advantage of our leading technology and our ability to integrate our full range of services to enhance our position as a market leader in:

land and transition zone seismic data acquisition applications;

innovative marine or subsea acquisition systems and services;

seismic data processing and reservoir services; and

manufacturing of land, marine and subsea data acquisition equipment.

In this respect, we intend to continue our high level of research and development investment to reinforce our technological leadership.

***Emphasize Client Service***

We believe it is important to operate in close proximity to our clients to develop a better understanding of their individual needs and to add measurable value to their business processes. We respond to these needs by creating new products or product enhancements that improve the quality of data and reduce the data delivery time to clients. We believe that our regional multi-client and dedicated data processing centers in our clients' offices provide us with an advantage in identifying contract opportunities, optimizing service to clients and developing products responsive to new market demands, such as seismic techniques applied to reservoir management. We believe that we are well positioned to benefit from the industry trend towards increased outsourcing that is leading oil and gas companies to place greater emphasis on relationships and service quality, including health, safety and protection of the environment, in their selection of geophysical services providers. We will continue to monitor our strategy towards service to clients through:

tailoring our data acquisition operations to meet specific client demands;

expanding regional multi-client and dedicated on-site processing centers;

recruiting and training customer-oriented service staff;

organizing client training seminars focused on our products and services;

developing easy access to our multi-client data library through the increasing application of e-business technologies;

developing corporate contracts with our main clients;

taking advantage of the possibilities created by the development of e-business technologies to reinforce our marketing efforts;

gaining access to new data acquisition markets, such as subsea and newly opening territories; and

reinforcing client satisfaction.

**Table of Contents*****Provide Integrated Services***

We are committed to providing clients with a full array of seismic data services, from acquisition and processing to data interpretation and management. We believe that integration of compatible technology and equipment increases the accuracy of data acquisition and processing, enhances the quality of our client service and thereby improves productivity in oil and gas exploration and production. Our clients increasingly seek integrated solutions to better evaluate known reserves and improve the ratio of recoverable hydrocarbons from producing fields. We are continuing to develop our ability to provide geoscience solutions through a combination of various exploration and production services, including technical data management, reservoir characterization and interpretation of well information.

***Industry Consolidation***

We believe that consolidation in the seismic industry is the most promising avenue toward a recovery of margins and return on capital employed in the market that suffers from overcapacity and low pricing. In order to potentially play a leading role in this consolidation process, we acquired a 7.51% stake in Petroleum Geo Service ASA ( PGS ) in September 2002, which permits us to be involved in the restructuring process of PGS, without exposing our shareholders to that company's current level of indebtedness, beyond the 7.3 million initially invested. At December 31, 2002, we recorded this investment in our books for 3.2 million.

**Operating Revenues Data*****Revenues by Activity***

The following table sets forth our consolidated operating revenues by activity, and the percentage of total consolidated operating revenues represented thereby, during each of the periods stated:

	Year ended December 31,					
	2002		2001		2000	
	(in million, except percentages)					
Land SBU	184.6	26%	201.5	25%	196.7	28%
Offshore SBU	199.8	28%	201.7	25%	150.9	22%
Processing & Reservoir SBU	123.2	18%	108.3	14%	111.2	16%
Services	507.6	72%	511.5	64%	458.8	66%
Products	193.1	28%	291.4	36%	236.5	34%
<b>Total</b>	<b>700.7</b>	<b>100%</b>	<b>802.9</b>	<b>100%</b>	<b>695.3</b>	<b>100%</b>

***Revenues by Region (by location of customers)***

The following table sets forth our consolidated operating revenues by region, and the percentage of total consolidated operating revenues represented thereby, during each of the periods stated:

	Year ended December 31,					
	2002		2001		2000	
	(in million, except percentages)					
Americas	289.0	41%	293.7	37%	262.8	38%
Asia-Pacific/ Middle East	181.3	26%	215.0	27%	200.7	29%
Europe and CIS	116.5	17%	180.5	22%	105.1	15%
Africa	113.9	16%	113.7	14%	126.7	18%



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<b>Total</b>	<u>700.7</u>	<u>100%</u>	<u>802.9</u>	<u>100%</u>	<u>695.3</u>	<u>100%</u>
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### **Services**

Our services are organized into three SBUs for increased efficiency. We have established a network of country managers responsible for promoting our entire spectrum of products and services in our main markets, focusing on providing comprehensive solutions to client problems. We believe that our capacity to provide integrated geophysical services is a significant competitive advantage and will help us to implement all components of our strategy.

#### ***Land SBU***

We are a leading land seismic contractor outside of North America. At December 31, 2002, we had 17 land crews performing specialized 3D and 2D seismic surveys, out of which 12 were recording data. Revenues from our Land SBU accounted for 25% and 26% of our revenues in 2001 and 2002, respectively.

*Land Seismic Acquisition.* Land seismic acquisition includes all seismic surveying techniques where the recording sensor is either in direct contact with, or in close proximity to, the ground. Our Land SBU offers integrated services, including the acquisition and processing of seismic data on land, in transition zones and on the ocean floor (seabed surveys). We believe that our expertise in harsh environments, environmentally sensitive areas and transition zones provides us with a competitive advantage in our principal markets: Europe, Africa, the Middle East, Asia and Latin America. These areas present higher barriers to entry and are less sensitive to pricing competition due to difficult working environments and the complexity of the projects. In Saudi Arabia, our land seismic acquisition activities are conducted through Arabian Geophysical & Surveying Co. ( Argas ), a joint venture owned 49% by us and 51% by Petromin, our local partner.

*Description of Activity.* Seismic surveying on land is carried out by installing geophones linked to digital recorders that are used to receive the signals from reflected acoustical waves. Vibroseismic vehicles are the preferred method of generating acoustical waves since the frequency of the waves they emit can be precisely modulated by a computerized system and is less susceptible to noise or error. In difficult terrain or transition zones, however, other methods of generating acoustical waves must be utilized, such as explosives or airguns. For the year 2002, approximately 46% of our land seismic studies used vibroseismic vehicles, 40% used explosives and 14% used airguns.

Seismic surveying in transition zones and seabeds is carried out by laying cables or other stationary measuring devices on the ocean floor. Ocean bottom cables allow seismic surveys to be conducted in areas not accessible to marine vessels, such as shallow water or the area around drilling platforms. Ocean bottom cables also provide high quality seismic data because they are in direct contact with the ocean floor.

Our land seismic crews are equipped with advanced proprietary equipment and software used in each stage of the land seismic acquisition process, including:

the Sercel 408UL (Sercel's latest generation equipment) seismic data recorders, which feature 24-bit digital recording technology;

Geoland quality control software, which is used to verify that the location of field data points during a survey corresponds to their theoretical position;

the Sercel VE 432 vibrator electronic control system, used to synchronize and verify the emission of acoustical waves by vibrators; and

GeovecteurPlus software, used for on-site processing and quality control of acquired data.

We believe that our proprietary equipment and software enable us to offer high quality, fully integrated land seismic services. We have pioneered real-time positioning of geophones and seismic sources, quality control of positioning during land surveys, and onsite processing, which together increase the accuracy and efficiency of such surveys.

One of the challenges inherent in land acquisition surveys is gathering data without disrupting the sensitive ecosystems in which such surveys are frequently located. We have developed a strong position in environmentally sensitive zones, such as mountainous regions, tropical forests and swamps, by following a strict policy of

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preserving the natural environment to the extent possible. We have designed shallow draft boats and ultra-light drilling equipment to facilitate operations in such sensitive zones. This equipment can be transferred safely and rapidly from one area to another. We also work in conjunction with the local community at site locations, hiring local employees and obtaining necessary local authorizations to alleviate potential opposition to our operations.

The difficulty of access to survey sites is a major factor in determining the number of personnel required to carry out a survey and the cost of a survey. Fully staffed land or transition zone areas range in size from 40 to 3,000 members (principally composed of local employees in the latter case), and the cost of a survey can range from several hundred thousand to several million dollars per month, depending on the size of the team and the type and difficulty of the study.

We work closely with our clients to plan surveys in accordance with their specifications. This provides us with a competitive advantage in being selected to carry out surveys, whether such surveys are awarded based on competitive bids or directly negotiated agreements with clients. We regularly conduct land acquisition surveys for over national and international oil companies.

*Business Development.* We continue to upgrade the equipment used by our land acquisition crews with state-of-the-art land recording systems. For the year ended December 31, 2002, activity remained strong in the 3D segment, which represented approximately 74% of our Land SBU operations. During that period, we completed complex transition zone and shallow water surveys in Nigeria, in the Arabian and Persian Gulfs and Indonesia.

### ***Offshore SBU***

We provide a full range of 3D marine seismic and borehole services, principally in the Gulf of Mexico, the North Sea and off the coasts of West Africa and Brazil as well as in the Asia-Pacific region, in the case of borehole services. The capacity to both acquire and process marine seismic data is an important element of our overall strategy to develop our leadership in marine seismic data acquisition and processing. Revenues from our Offshore SBU accounted for approximately 25% and 28% of our revenues in 2001 and 2002, respectively.

*Marine Seismic Acquisition.* We currently operate a fleet of five vessels, two of which we own, two of which we operate under renewable time charters with Louis Dreyfus Armateurs ( LDA ), one of the largest shipowners in France and one of which we operate under time charter indirectly in partnership with LDA. Time charters allow us to change vessels in order to keep pace with market developments and provide us with the security of continued access to vessels without the significant investment required for ownership. LDA also supplies crews for the three vessels not wholly owned by us (other than persons directly involved in seismic data acquisition). LDA has provided some of the additional capital necessary to modernize the vessels and has renegotiated the time charters for such vessels following their reconfiguration.

On December 21, 2000, we purchased from LDA its 40% interest in CGG Marine (one of our seismic operation companies), acquired 50% of the capital stock of the entity that directly owns the *CGG Mistral* and agreed to the subsequent upgrade of the *CGG Mistral* from six to ten streamers. On January 16, 2001, we acquired two marine seismic vessels and 1,000 square kilometers of seismic data from Aker.

From January through July 2002, the *CGG Mistral* was out of service as it went through a technological upgrade, including the increase from six to ten streamers capacity. After returning to service in July, however, the *Mistral* sank on December 21 after an accidental fire broke out onboard off the coast of Trinidad. All personnel on board were safely evacuated. The streamers on the *CGG Mistral*, which were deployed for operation at the time of the accident, were partially recovered and are under evaluation by our insurers for potential repair. We are aware of no impact on the environment and, taking into account amounts due to us under our insurance policies, the loss of the *CGG Mistral* did not have a material impact on our results of operations for 2002. We do not intend to replace this vessel.

*Description of Activity.* Marine seismic surveys are conducted through the deployment of submersible cables (streamers) and acoustic sources (airguns) from marine vessels. Such streamers are each up to ten kilometers long and carry hydrophone groups normally spaced 12.5 meters apart along the length of the streamer. The recording capacity of a vessel is dependent upon the number of streamers it tows and the number of acoustic

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sources it carries, as well as the configuration of its data recording system. By increasing the number of streamers and acoustic sources used, a marine seismic operator can perform large surveys more rapidly and efficiently.

As a result of the loss of the *CGG Mistral*, we now operate five marine seismic vessels. Each of our vessels is equipped with modern integrated equipment and software and has the capacity to conduct 3D surveys. Our vessels can deploy between six and ten streamers up to ten kilometers long and are equipped with on-board processing capability. Our on-board data processing employs our proprietary software.

Marine seismic acquisition requires advanced navigation equipment for positioning vessels, acoustic sources and streamers and specialized techniques for safe and rapid deployment and retrieval of acoustic sources and streamers. Each vessel operated by CGG Marine is fitted with a full complement of modern integrated equipment and software, including onboard computer equipment running our GeovecteurPlus software, used to process seismic data.

*Multi-client Library Sales.* Non-exclusive surveys accounted for approximately 66% of our marine seismic activities in 2002 as a result of two new multient programs we launched. The first covers in the Gulf of Mexico, the Garden Banks and the Mississippi Atwater Valley and totals 8,370 km<sup>2</sup> and the second, covering 7,618 km<sup>2</sup> of new data, is in Brazil. Both are highly pre-committed by clients.

Exclusive contract surveys generally provide for us to be paid a fixed fee per square kilometer of data acquired. When we acquire marine seismic data on an exclusive basis, the customer directs the scope and extent of the survey and retains ownership of the data obtained. In regions where there is extensive petroleum exploration, such as Brazil, the Gulf of Mexico, West Africa and the North Sea, we also undertake multi-client (or non-exclusive) surveys whereby we retain ownership of the seismic data. This enables us to license multiple companies to use the data. As a result, we have the potential to obtain multiple and higher revenues, while our customers who license the data have the opportunity to pay lower prices. Our policy is generally to require a minimum share of the estimated cost of each multi-client survey to be covered by pre-sales to clients prior to commencement. We treat these multi-client projects as investments. In determining whether to undertake multi-client surveys, we consider factors that include the availability of initial participants to underwrite a share of the costs to acquire such data, the location to be surveyed, the probability and timing of any future lease concessions and development activity in the area and the availability, quality and price of competing data.

*Borehole Seismic.* Our borehole services business records and processes seismic information in oil or gas wells that is used to map geological strata and to complement and enhance 2D and 3D seismic surveys. Over many years we have developed and brought to market new data acquisition and processing technology to record and process such data better, faster and at more levels within the well. In addition to this vertical seismic profiling service, we now offer highly sensitive downhole tools to record microseismic disturbances caused by hydrocarbon production or reservoir stimulation by hydrofracturing. This enables active faults and hydrofracturing progress to be mapped accurately in real time. Our clients include the major petroleum companies, both international and national, and the major logging contractors.

On December 27, 2002, we sold our borehole seismic activity business to Baker Atlas, a division of Baker Hughes for U.S.\$12 million cash and agreed to form a joint venture with Baker Atlas for the processing and interpretation of borehole seismic data in which we own a 49% stake. The joint-venture was incorporated in February 2003

*Positioning.* Effective December 24, 2001, we sold the three companies comprising our radio positioning business to Fugro for 7 million in cash. Until that time, we provided positioning services to companies mostly unrelated to the seismic industry. Our operational system was based on differential global positioning satellite technology, which is able to calculate the co-ordinates of any location on earth to within one meter. Following the sale to Fugro, we retained some internal radio positioning capacity for our own needs but do not have the capacity to offer stand-alone radio positioning services to third parties.

*Business Development.* We intend to maintain a technologically advanced fleet to enhance our position in the marine seismic data acquisition and processing market.

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We intend to continue to develop our offshore multi-clients program while carefully selecting survey opportunities in order to monitor our investment closely and to build a sound data library in promising exploration areas. We believe that a strong position in this market segment is vital to enhance further our global competitive position, as it will permit us to adapt to current market demand and will provide opportunities for significant future sales.

We intend to continue the development of advanced techniques, such as the use of solid streamers, plus on-board processing or data transmission from vessel to onshore processing centers or client facilities, to reduce data delivery time to clients.

### ***Processing & Reservoir SBU***

We provide seismic data processing and reservoir services through our network of 26 data processing centers (including the two dedicated 4D processing centers for which we were awarded contracts in 2001) and reservoir teams located around the world, and we have renewed our contracts to provide dedicated centers for two major oil and gas companies. Revenues from our Processing & Reservoir SBU accounted for approximately 14% and 18% of our revenues in 2001 and 2002, respectively.

*Description of Activity.* Our seismic data processing operations transform seismic data acquired in the field into 2D cross-sections or 3D images of the earth's subsurface, using Geocluster, our newly introduced proprietary seismic software. These images are then interpreted by geophysicists and geologists for use by oil and gas companies in evaluating prospective areas, selecting drilling sites and managing producing reservoirs. We process seismic data acquired by our own land and marine acquisition crews as well as seismic data acquired by non-affiliated third parties. Marine seismic data has been a significant source of the growth in demand for our data processing services, and represents over two-thirds of our operating revenues generated in our processing centers. In addition, we reprocess previously processed data using new techniques to improve the quality of seismic images.

Beyond conventional processing and reprocessing, we are also increasingly involved in reservoir-applied geophysics. Our Processing & Reservoir SBU offers reservoir-related services, an activity which encompasses large integrated reservoir studies from reprocessing to full reservoir simulation, as well as advanced technology studies such as reservoir characterization, stratigraphic inversion and stochastic reservoir modeling. In 2001 we were awarded contracts to operate dedicated 4D processing centers for BP and Shell.

While our reservoir teams mainly operate from Houston (covering South American projects), London and Massy (France), we also provide seismic data processing (conventional and reservoir-oriented) services through a large network of international and regional data processing centers located around the world. We operate six international processing centers located in Massy (France), London (U.K.), Oslo (Norway), Houston (U.S.), Kuala Lumpur (Malaysia) and Calgary (Canada). Five of these centers are linked by high-speed fiber optic connections and all of our centers have access to powerful high-performance computers. We complement our network of international centers with regional multi-client centers and dedicated centers which bring processing facilities within our clients' premises. Thirteen of our data processing centers are dedicated centers that are located in our clients' offices. We believe that these dedicated centers are responsive to the trend among oil and gas companies to outsource processing work while providing our clients with a high level of service. These centers enable our geoscientists to work directly with clients and tailor our services to meet individual clients' needs.

Each of the principal computers used at our centers is leased for a period of approximately two years, permitting us to upgrade to more advanced equipment at the time of renewal. In 2002, we had more than 10,000 PC clusters worldwide, a real-time computer capacity representing 15 teraflops as of January 1, 2003, five times more than at the start of 2002 and 30 times more than at the start of 2001. Our delivery time has decreased in recent years, enabling delivery of data to clients within the same timeframe as work performed directly onboard marine vessels. We believe that, with the combined capacity of our centers located in Massy and London, we have one of the largest computing capacities of any private facility in Europe.

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*IT and Data Management.* We compete in the data management market through sales of PetroVision, a software designed to manage and permit instant retrieval of large quantities of geological, geophysical, well and production data.

*Processing Software Development and Sales.* We sell Geocluster, our proprietary processing software, to the oil and gas industry as well as to scientific and university research centers. This software is currently available on most modern platforms in the market, including Linux platforms. Our other software products include:

Geovista, a set of software products used to produce accurate images of geological structures and showing depth;

Stratavista, advanced software used to determine specific rock properties from stratigraphic inversion of seismic data.

WaveVista, a new depth migration service based on wave equations

VectorVista, designed to provide greater understanding of seismic data acquired with multi-component techniques

ChronoVista, a set of software products used to produce accurate images of geological structures over time

*Business Development.* The Processing and Reservoir SBU currently operates 13 open centers and 13 dedicated centers within client offices. The deployment of new technologies developed by research and development teams and improved project management methods have increased efficiency crucial in the domain of time and depth migrations. The expertise in 4D that we acquired in the North Sea, in particular through our 4D dedicated centers in Aberdeen, has now been exported to the Gulf of Mexico, where this activity is growing.

Our expertise in fractured reservoirs has enabled us to develop in the Middle East. This has led to the award of first 4D land survey project and a reservoir study in Bahrain that supplements the acquisition and processing already completed by us in 1999. As a result, we opened a new regional data processing center in Abu Dhabi that became operational in 2001.

Our geographical presence was strengthened in Southeast Asia with the opening of the Kuala Lumpur hub, equipped with new computer facilities, which is becoming one of our three major regional hubs, after London and Houston, enabling us to increase our presence throughout the Asia-Pacific region.

Throughout 2001 and 2002, we have developed and promoted our high technology expertise, regional experience and flexibility with the ultimate goal of providing our clients with solutions that are innovative, adapted and more geared towards reservoir solutions.

We believe that our network of processing centers, the quality of our personnel, and our innovative technology provide us with a strong base to consolidate our presence in our markets and further expand our activities.

## **Products**

We conduct our equipment development and production operations through our Sercel subsidiary. Sercel is the market leader in the development and production of seismic acquisition systems and specialized equipment in the land and offshore seismic markets. Sercel is operated as an independent division and makes most of its sales to purchasers other than CGG. Sercel currently operates six equipment manufacturing facilities, located in Nantes and Saint Gaudens (France), Houston (U.S.), Singapore, Alfreton (England) and Calgary (Canada). In China, Sercel is also a 40% partner in a manufacturing joint-venture with XPEIC (Xian Petroleum Equipment Industrial Corporation). Revenues from our Products segment accounted for approximately 36% and 28% of our consolidated operating revenues in 2001 and 2002, respectively.

*Description of Activity.* Sercel offers and supports worldwide a complete range of geophysical equipment for seismic data acquisition, including seismic recording equipment and vibroseismic vehicles, and provides its

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clients with integrated solutions. Sercel's principal product line is seismic recording equipment, particularly the 408UL 24-bit recording systems.

In November 1999, Sercel launched the latest generation seismic data recording system, the 408UL. The 408UL offers greater operating flexibility than any other previous generation system due to:

clusters of ultra-light acquisition modules allowing total flexibility of configuration, with the option of mixing different communication media (cable, radio, micro-wave, laser, fiber-optic) to form a true network allowing the user to define data routing and hence avoid obstacles in the field; and

an architecture fully supported by a new generation of object-oriented software.

Sercel significantly expanded its product range and increased its market share in the seismic equipment industry with the acquisitions of GeoScience Corporation in December 1999 and Mark Products in September 2000. As a result of these acquisitions, Sercel is a market leader in the development and production of both marine and land geophysical equipment. The 408UL is one of the industry's most advanced systems, and at the end of the year, the installed base reached more than 240,000 channels. Sercel, seeking to provide users with systems well-adapted to various environments, developed the 408UL system on the basis of an upgradeable architecture. In addition to recording systems, Sercel develops and produces a complete range of geophysical equipment for seismic data acquisition, including vibroseismic vehicles, streamers, ocean bottom cables, geophones, hydrophones, cables and connectors and other ancillary geophysical products. One important benefit of the GeoScience acquisition has been the introduction of 408UL system technology in Sercel's new streamer and seabed equipment product lines, based on concepts previously developed by GeoScience. Sercel has thus recently developed, among other products, an innovative solid streamer cable for marine seismic data acquisition that is designed to reduce downtime due to adverse weather conditions and thereby increase data acquisition productivity.

## **Backlog**

Backlog for our Services segment represents the revenues we expect to receive from commitments for contract services we have with our customers and, in connection with the acquisition of multi-client data, represents the amount of pre-sale commitments for such data. Backlog for our Products segment represents the total value of orders we have received but not yet fulfilled.

Backlog estimates are based on a number of assumptions and estimates, including assumptions as to exchange rates between the euro and the U.S. dollar and estimates of the percentage of completion contracts. Contracts for services are occasionally modified by mutual consent and in certain instances are cancelable by the customers on short notice without penalty. Consequently, our backlog as of any particular date may not be indicative of our actual operating results for any succeeding period.

As of December 31, 2002, we estimate that our total backlog (Services and Products) was approximately \$300 million, compared to total backlog of \$287 million as of December 31, 2002.

## **Seasonality**

Our land and marine seismic acquisition activities are seasonal in nature. We generally experience decreased revenues in the first quarter of each year due to the effects of weather conditions in the Northern Hemisphere and to the fact that our principal clients are generally not prepared to fully commit their annual exploration budget to specific projects during that period.

We have historically experienced higher levels of activity in our equipment manufacturing operations in the fourth quarter as our clients seek to fully deploy annual budgeted capital.

## **Intellectual Property**

We continually seek the most effective and appropriate protection for our products, processes and software and, as a general rule, will file for patent, copyright or other statutory protection whenever possible. Our patents, trademarks, service marks, copyrights, licenses and technical information collectively represent a material asset to

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our business. However, no single patent trademark, copyright, license or piece of technical information is of material importance to our business when taken as a whole. As of December 31, 2002, we held 60 patents in respect of different products and processes worldwide. The duration of these patents varies from four to 20 years, depending upon the date filed and the duration of protection granted by each country.

**Competition**

Most contracts are obtained through a competitive bidding process, which is standard for the industry in which we operate. Important factors in awarding contracts include service quality, technological capacity, performance, reputation, experience of personnel, customer relations and long-standing relationships, as well as price. While no single company competes with us in all of our segments, we are subject to intense competition with respect to each of our segments. We compete with large, international companies as well as smaller, local companies. In addition, we compete with major service providers and government-sponsored enterprises and affiliates. Some of our competitors operate more data acquisition crews than we do and have substantially greater financial and other resources.

We believe that consolidation in the seismic industry is the most promising avenue toward a recovery of margins and return on capital employed in a market that suffers from overcapacity and low pricing. It is our intent, on a long-term basis, to work toward consolidation of the industry. In order to potentially play a leading role in this consolidation process, we acquired a 7.51% stake in PGS in September 2002, which permits us to be involved in the restructuring process of PGS, without exposing our shareholders to the current level of indebtedness of PGS, beyond the 7.3 million initially invested. At December 31, 2002, we recorded this investment in our books for 3.2 million.

Our principal competitor for the manufacture of seismic survey equipment is Input/ Output Inc. The market for seismic survey equipment is highly competitive and is characterized by continual and rapid technological change. We believe that technology is the principal basis for competition in this market as oil and gas companies have increasingly demanded new equipment for activities such as reservoir management and data acquisition in difficult terrain. Oil and gas companies have also become more demanding with regard to the quality of data acquired. Other competitive factors include price and customer support services.

**Litigation**

We are not, nor are any of our subsidiaries, involved in any litigation, arbitration or administrative proceedings relating to amounts which, individually or in the aggregate, are material and, to the best of our knowledge, there are no such litigation, arbitration or administrative proceedings pending or threatened.

**Organizational Structure**

We are the parent company of the CGG Group. Our principal subsidiaries are as follows:

<b>Subsidiary</b>	<b>Jurisdiction of Organization</b>	<b>Head office</b>	<b>% of interest</b>
Sercel SA	France	Carquefou, France	100.0
CGG Marine SAS	France	Massy, France	100.0
CGG Americas, Inc.	United States	Houston, Texas, United States	100.0
CGG Marine Resources Norge A/S	Norway	Hovik, Norway	100.0
Compañía Mexicana de Geofísica	Mexico	Mexico City, Mexico	100.0
CGG do Brazil	Brazil	Rio de Janeiro, Brazil	100.0
Exgeo CA	Venezuela	Caracas, Venezuela	100.0
Sercel Inc.	United States	Tulsa, Oklahoma, United States	100.0



**Table of Contents****Property, Plants and Equipment**

The following table sets forth certain information as of December 31, 2002 relating to our principal properties.

<u>Location</u>	<u>Type of facilities</u>	<u>Size</u>	<u>Owned/ Leased</u>	<u>Lease Expiration Date</u>
Paris, France	Executive offices for the Group	725 m <sup>2</sup>	Leased	2009
Massy, France	Principal administrative offices for the Group	9,800 m <sup>2</sup>	Leased	2005
Massy, France	Data processing center	12,200 m <sup>2</sup>	Owned	N/A
London, England	Data processing center	24,975 m <sup>2</sup>	Leased	2011
London, England	Administrative offices	2,074 m <sup>2</sup>	Lease	2010
Houston, U.S.A.	Offices of CGG Americas, Inc.	6,905 m <sup>2</sup>	Leased	2007
Houston, U.S.A.	Offices and manufacturing premises of Sercel	24,154 m <sup>2</sup>	Leased/ Owned	2002 N/ A
Carquefou, France	Factory of Sercel. Activities include research and development relating to, and manufacture of, seismic data recording equipment	23,318 m <sup>2</sup>	Owned	N/ A
Saint Gaudens, France	Factory of Sercel. Activities include research and development relating to, and manufacture of, geophysical cables, mechanical equipment and borehole seismic tools.	16,000 m <sup>2</sup>	Owned	N/ A
Calgary, Canada	Manufacture of geophysical cables	55,000 m <sup>2</sup>	Owned	N/ A
Alfreton, England	Manufacture of geophysical cables	5,665 m <sup>2</sup>	Owned	N/ A
Singapore	Manufacture of geophysical cables	5,595 m <sup>2</sup>	Owned	N/ A

We also lease offices worldwide to support our operations. We believe that our existing facilities are adequate to meet our current requirements.

The following table provides certain information concerning the five vessels operated by the Offshore SBU during 2002, excluding the CGG Mistral, which sank in December 2002 :

<u>Vessel Name</u>	<u>Year Built</u>	<u>Year Added to Fleet</u>	<u>Year Reconfigured</u>	<u>Charter Expires</u>	<u>Number of Streamers</u>	<u>Vessel Length (in meters)</u>
CGG Föhn	1985	1985	1997	2004	8(1)	84.5
CGG Harmattan	1993	1993	1996	2004	8(1)	96.5
CGG Alizé	1999	1999		2007	10	100.0
CGG Amadeus	1999	2001			8	87.0
CGG Symphony	1999	2001			10	120.7

(1) In high resolution mode.

**Environmental Matters and Safety**

Our operations are subject to a variety of laws and regulations relating to environmental protection. We invest financial and managerial resources to comply with such laws and regulations. Although such expenditures historically have not been material to us, and we believe that we are in compliance in all material respects with



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applicable environmental laws and regulations, the fact that such laws and regulations are changed frequently prevents us from predicting the cost of impact of such laws and regulations on our future operations. We are not involved in any legal proceedings concerning environmental matters and are not aware of any claims or potential liability concerning environmental matters that could have a material adverse impact on our business or consolidated financial condition.

Efforts to improve safety and environmental performance over the last few years continued as some procedures were strengthened and others implemented to increase awareness among personnel and subcontractors, including obligatory regular meetings in the field and onboard. A comprehensive Health, Safety and Environment management system, placing particular emphasis on risk management, has been established to cover all activities and is being continuously adapted for each segment.

## **Item 5: OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

### **Operating Results**

The following operating and financial review and prospects should be read in connection with our consolidated financial statements and the notes thereto included elsewhere in this annual report, which have been prepared in accordance with French GAAP.

As CGG is listed on the New-York Stock Exchange (American Depositary Shares), we have to file on Form 20F with the SEC our annual financial statements reconciled with the accounting principles generally accepted in the United States ( U.S. GAAP ). For the year ended December 31, 2000 there were no material differences between French GAAP and U.S. GAAP. Beginning with the financial statements for fiscal year 2001, French GAAP differs in certain significant respects from U.S. GAAP. The differences between French GAAP and U.S. GAAP as they relate to the Group, and the reconciliation of net income and shareholders' equity to U.S. GAAP are described in note 27 to our consolidated financial statements.

### **Factors Affecting Results of Operations**

We divide our businesses into two segments, geophysical services and geophysical products. We have organized our Services segment into three strategic business units, or SBUs, since 1999:

the Land SBU, for land and shallow water seismic acquisition activities;

the Offshore SBU, for marine seismic acquisition activities, multi-client library sales and borehole seismic services; and

the Processing & Reservoir SBU, for seismic data processing, data management and reservoir studies.

Our Products segment includes primarily our equipment manufacturing subsidiary Sercel.

During 2000 and 2001, our operational capability was enhanced by several strategic acquisitions, which broadened the market presence of both our Products segment and our Offshore (SBU).

During 2002, we did not acquire any further operations, but we acquired a 7.51% financial stake in Petroleum Geo Services ASA ( PGS ). PGS, a Norwegian corporation, has its headquarters in Oslo and is listed in Oslo and on the Nasdaq. PGS has two business segments, one relating to seismic data acquisition and processing, and the other covering floating production and storage operations (FPSO).

On July 4, 2002, we acquired a 30% stake in the share capital of CGG Asia-Pacific (formerly Teknosif Sdn Bhd) with a value of 405,000 Malaysian Ringgit ( 0.1 million). CGG Asia-Pacific is engaged in data processing activities and is incorporated in Malaysia. This transaction did not generate any material goodwill.

In August 2002, we disposed of our shareholding in Paradigm Geophysical Ltd. ( PGEO ) and sold to Baker Hughes Inc. ( Baker Hughes ) in December 2002 our borehole seismic data acquisition business as described below in Acquisitions and Dispositions .

Also, in December 2002, our seismic vessel the *CGG Mistral* sank after fire broke out accidentally off the coast of Trinidad. All personnel on board were safely evacuated. The streamers on the *CGG Mistral*, which were



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deployed for operation at the time the fire broke out, were partially recovered. We are aware that the fire did not have any material impact on the environment. Further, taking into account amounts due to us under our insurance policies, the loss of the *CGG Mistral* did not have a material impact on our results of operations for 2002. We do not expect any material impact on earnings for 2003.

During 2000 and 2001, our shareholders' equity increased by an aggregate of \$191 million, and it decreased by an aggregate of \$25 million in 2002. We issued U.S.\$170 million (\$191 million) of seven-year senior notes at the end of 2000, and an additional U.S.\$55 million (\$62 million) of such senior notes in February 2002.

Overall demand for geophysical services is dependent upon spending by oil and gas companies for exploration, production, development and field management activities. This spending depends in part on present and expected future oil and gas prices. Oil and gas prices increased significantly from mid-1999 through 2000, resulting in a modest increase in spending on geophysical services by our clients. In early 2001, economic conditions in Europe and the United States began to deteriorate, and oil and gas prices declined. The events of September 11, 2001 compounded the worsening economic climate. These conditions, in turn, resulted in a reduction in energy demand and downward pressure on energy prices, particularly gas prices in North America. Energy prices in 2002 fluctuated at a more favorable level in the second half of the year and continued to move at high levels during the first quarter of 2003 in an environment of uncertainty stemming from the Iraq crisis. We believe that beyond the current short-term outlook, the need by the major oil and gas operators to replace reserves (which are currently being depleted at a rate estimated by industry analysts at 5% to 10% per year) will be a factor tending to support energy prices and increase demand for our services.

Our revenues for 2002 decreased 13% compared with revenues for 2001. Expressed in U.S. dollars, the decrease amounted to 8%. The decrease resulted primarily from a slowdown in our Products segment, which experienced a decrease in revenues (excluding intra-group sales) of 34% for 2002 compared to 2001, as a result of a weaker equipment market globally. Expressed in U.S. dollars, the decrease amounted to 30%. Revenues for 2002 for our Land SBU decreased 8% compared to 2001. Revenues from our Offshore SBU were stable despite the sale of our radio positioning business in December 2001 and the upgrading of the *CGG Mistral*, which put it out of service from January through July 2002. Revenues from our Processing & Reservoir SBU increased 14% for 2002 compared to 2001. Our backlog as of December 31, 2002 was \$270 million (U.S.\$283 million), compared to \$300 million (U.S.\$264 million) as of December 31, 2001, representing a 7% increase in U.S. dollar terms. This was attributable primarily to our Services segment.

Our results of operations have also been affected by higher proportion of non-exclusive surveys in 2002 when compared to 2001 because non-exclusive surveys have larger initial financing requirements. In 2001, our marine seismic activities were fairly balanced between exclusive and non-exclusive surveys, with non-exclusive surveys accounting for approximately 43% of our marine seismic activities in 2001. For the year ended December 31, 2002, non-exclusive surveys accounted for approximately 66% of our marine seismic activities due to an important survey conducted in Brazil during the year 2002 that was highly pre-committed.

***Acquisitions and Dispositions***

On December 27 2002, we sold our borehole seismic activity business to Baker Atlas, a division of Baker Hughes for U.S.\$12 million cash and agreed to form a joint venture with Baker Hughes for the processing and interpretation of borehole seismic data. The joint venture, in which we own a 49% stake, was incorporated in February 2003 and is currently operational.

In September 2002, we acquired 7,757,400 shares of PGS for approximately \$7.3 million, representing a 7.51% stake in that company.

We believe that consolidation in the seismic industry is the most promising avenue towards a recovery of margins and return on capital employed in a market that suffers from overcapacity and low pricing. It is our intent, on a long-term basis, to work toward consolidation of the industry. We acquired the PGS stake with the objective of playing a leading role in this consolidation process without exposing our shareholders to the current level of indebtedness of PGS beyond the \$7.3 million initially invested. As of December 31, 2002, this investment was recorded in our books for \$3.2 million.

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On May 21, 2002, Talamantes B.V., a Dutch company and PGEO entered into a merger agreement providing for the merger of PGEO into Talamantes or one of its subsidiaries. Pursuant to the merger agreement, all PGEO outstanding ordinary shares were to be converted into the right to receive \$5.15 in cash each, without interest. In consideration of the execution of the merger agreement by PGEO, we entered into a voting agreement, dated as of May 21, 2002, with Talamantes by which we agreed to vote in favor of the merger. The merger was completed on August 13, 2002 and our PGEO shares were converted into the right to receive the merger consideration upon surrender of the shares. We received U.S.\$7.7 million in merger consideration in September 2002.

Effective December 24, 2001, we sold the three companies comprising our radio positioning business to Fugro N.V., a Dutch corporation, for 7 million in cash.

On January 16, 2001, we acquired two marine seismic vessels and certain seismic data from an affiliate of Aker. As consideration for this acquisition, we paid U.S.\$25 million in cash, which we funded using a portion of the proceeds of our offering of senior notes in November 2000, and we issued 1,591,407 shares of our common stock at a value of approximately 69.27 per share, representing approximately 110 million, to Aker.

***Critical Accounting Policies***

Our significant accounting policies, which we have applied consistently in all material respects, are more fully described in Note 1 to our consolidated annual financial statements contained in this annual report. However, certain of our accounting policies are particularly important to the portrayal of our financial position and results of operations. As we must exercise significant judgment when we apply these policies, their application is subject to an inherent degree of uncertainty. We believe the following critical accounting policies require our more significant judgments and affect estimates used in the preparation of our consolidated financial statements.

*Multi-client survey accounting*

Multi-client surveys consist of seismic surveys to be licensed to customers on a non-exclusive basis. All costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized into the multi-client library. The multi-client library is stated at this cost less accumulated amortization or fair value if lower. We review the library for potential impairment for each survey on an ongoing basis.

*Revenue recognition*

Revenues related to multi-client surveys result from pre-commitments and licenses after completion of the surveys ( after-sales ).

*Pre-commitments* Generally we obtain commitments from a limited number of customers before a seismic project is completed. These commitments cover part or all of the survey area blocks. In return for the commitment, the customer typically gains the ability to direct or influence the project specifications, advance access to data as it is being acquired, and favorable pricing.

We recognize pre-commitments as revenue based on the ratio of project cost incurred to total estimated project cost, which we believe reflects the physical progress of the project.

*After sales* Generally we grant a license entitling non-exclusive access to a complete and ready for use, specifically defined portion of our multi-client data library in exchange for a fixed and determinable payment. We recognize after sales revenue upon the client executing a valid license agreement and having been granted access to the data. Within thirty days of execution and access, the client may exercise our warranty that all the data conforms to technical specifications.

*After sales volume agreements* We enter into a customer arrangement in which we agree to grant licenses to the customer for access to a specified number of blocks of the multi-client library. These arrangements typically enable the customer to select and access the specific blocks for a limited period of time. We recognize revenue when the blocks are selected and the client has been granted access to the data.

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*Amortization*

We amortize the multi-client surveys according to three different sets of parameters depending on the area or type of surveys considered:

Gulf of Mexico surveys: amortized on the basis of 66.6% of revenues. Starting at time of data delivery, a minimum straight-line depreciation scheme is applied on a three years period, should total accumulated depreciation from sales be below this minimum level,

Rest of the world surveys: same as above except depreciation is 83.3% of revenues and straight-line depreciation is a five year period from data delivery,

Long term strategic 2D surveys: amortization on sales according to the above area split and straight-line depreciation on a seven years period from data delivery.

*Exclusive survey accounting (Proprietary/Contract services)*

We perform seismic services for a specific customer. We recognize proprietary/contract revenue as the services are rendered. We evaluate the progress to date, in a manner generally consistent with the physical progress of the project, and recognize revenue based on the ratio of the project's cost to date to the total project cost.

*Other geophysical services*

Revenue from our other geophysical services is recognized as the services are performed.

*Goodwill amortization and impairment of long-lived assets*

We amortize goodwill on a straight-line basis over future periods of benefit, as estimated by management, which may range from five to twenty years. We select the period of benefit based on the strategic significance of the asset acquired.

We assess the impairment of identifiable intangibles, long-lived assets and goodwill whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important that could trigger an impairment review include the following:

significant underperformance relative to expected operating results based upon historical and/or projected data;

significant changes in the manner of our use of the acquired assets or the strategy for our overall business; and

significant negative industry or economic trends.

When we determine that the carrying value of intangibles, long-lived assets and goodwill may not be recoverable based upon the existence of one or more of the above indicators of impairment, we compare that the carrying value of each group of autonomous assets (independent operating units or subsidiaries) with the undiscounted cash flows that they are expected to generate based upon our expectations of future economic and operating conditions. Should this comparison indicate that an asset is impaired, the write-down recognized is equivalent to the difference between carrying value and either value or the sum of discounted future cash flows.

**Year ended December 31, 2002 compared to year ended December 31, 2001**

***Operating Revenues***

Our consolidated operating revenues for 2002 decreased 13% to 700.7 million from 802.9 million for 2001. Because approximately 85% of our operating revenues during 2002 and 2001 were in U.S. dollars, the decrease in the value of the U.S. dollar that occurred during the second half of 2002 had a negative impact on our operating revenues as expressed in euros in our financial statements. Expressed in U.S. dollars, our consolidated operating revenues decreased 8% to U.S.\$665.1 million from U.S.\$719.5 million in 2001. This decrease was





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primarily attributable to decreases in operating revenues in our Products segment and, to a lesser extent, our Land SBU.

*Services*

Operating revenues for our Services segment (excluding internal sales) for 2002 were fairly stable at 507.6 million from 511.5 million for 2001. Expressed in U.S. dollars, operating revenues increased 5% to U.S.\$482.9 million for 2002 from U.S.\$458.6 million for 2001 due to continued growth in Offshore SBU multi-client library sales and strong operating performance of our Processing & Reservoir SBU.

*Land SBU.* Operating revenues for our Land SBU for 2002 decreased 8% to 184.6 million compared to 201.5 million for 2001. In U.S. dollars, operating revenues decreased 2% to U.S.\$176.1 million for 2002 from U.S.\$180.5 million for 2001. This slight decrease was a consequence of our low backlog in the fourth quarter of 2001, which mainly affected operating revenues for the first quarter of 2002. On average, 15 crews were in operation in 2002 compared to 14 in 2001.

*Offshore SBU.* Operating revenues for our Offshore SBU for 2002 were essentially stable at 199.8 million compared to 201.7 million for 2001. In U.S. dollars, operating revenues increased 5% to U.S.\$190.1 million for 2002 from U.S.\$181.1 million for 2001. Despite the temporary unavailability of the *CGG Mistral* from January through July 2002 and the sale of our radio positioning business, operating revenues were essentially stable due to better operating performance of our vessels and improved pricing for certain exclusive surveys.

Multi-client data sales increased 35% to 134 million for 2002 from 99 million for 2001 essentially due to high level of pre-commitment sales. Exclusive contracts accounted for 34% of our Offshore SBU sales in 2002 compared to 57% in 2001. The net book value of our marine multi-client data library was 125.8 million as of December 31, 2002 compared to 91.3 million as of December 31, 2001.

*Processing & Reservoir SBU.* Operating revenues for our Processing & Reservoir SBU for 2002 increased 14% to 123.2 million compared to 108.3 million for 2001. In U.S. dollars, operating revenues increased 20% to U.S.\$116.7 million for 2002 from U.S.\$97 million for 2001 due to the increased market penetration of our high end products.

*Products*

Operating revenues for our Products segment for 2002 decreased 18% to 262.4 million from 321.2 million for 2001. Expressed in U.S. dollars, operating revenues decreased 14% to U.S.\$247.4 million for 2002 from U.S.\$287.6 million for 2001. Excluding intra-group sales, operating revenues decreased 34% to 193.1 million for 2002 compared to 291.4 million for 2001. Sales of land products experienced softer demand than in the prior year, which had benefited from exceptionally strong market conditions in 2001. Marine product sales, however, doubled, which was attributable to the sales of four Seal systems.

***Operating Expenses***

Cost of operations, including depreciation and amortization, decreased 17% to 531.4 million for 2002 from 641.7 million for 2001. As a percentage of operating revenues, cost of operations decreased to 76% for 2002 compared to 80% for 2001, largely due to more efficient operations, principally in the Processing & Reservoir and Offshore SBUs. Gross profit increased to 169.3 million for 2002 compared to 161.2 million for 2001.

Research and development expenditures, net of government grants, decreased 23% to 27.1 million for 2002 from 35.3 million for 2001 due primarily to the costs of developing and testing prototype marine products in 2001.

Selling, general and administrative expenses increased 2% to 86.7 million for 2002 from 84.8 million for 2001, due primarily to the payment of certain corporate consulting fees, especially in connection with our acquisition of PGS shares. As a percentage of operating revenues, selling, general and administrative costs increased to 12% in 2002 compared to 11% in 2001.

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Other revenues decreased 55% to 6.1 million for 2002 from 13.7 million for 2001. Other revenues for 2002 consisted essentially of non-recurring gains of 8 million related to the sale of our Borehole seismic activity business and a non-recurring loss of 2 million due to the sale of our Paradigm stock. Other revenues for 2002 also included an asset write-down of 62 million related to the shipboard fire that caused our seismic vessel the *CGG Mistral* to sink, which included the value of the vessel and the equipment on board. This write down was offset by the insurance indemnities recorded in the same amount, of which we received U.S.\$42 million in early 2003. Other revenues for 2001 included primarily revenues of 8 million related to the sales of our interest in one of our Gulf of Mexico multi-client surveys and non-recurring gains of 5 million. Such 5 million gain came mostly from the sale of our radio positioning business and net restructuring credits that were offset by anticipated Land SBU contract losses in Argentina.

***Operating Income (Loss)***

We had an operating income for 2002 of 61.6 million compared to an operating income of 54.8 million for 2001.

Operating income from our Services segment was 27.4 million for 2002 compared to 0.5 million for 2001. This significant increase resulted primarily from the improvement of the profitability in our Offshore and Processing & Reservoir SBUs.

Operating income from our Products segment was 51.2 million for 2002 compared to 71.2 million for 2001. The decrease was due primarily to the weakening U.S. dollar and decreased demand for land products, which generally carry a higher profit margin than marine products.

***Financial Income and Expenses, Net***

Net interest and financial expenses increased 42% for 2002 to 32.6 million from 23.0 million for 2001. The increase resulted primarily from the issuance in February 2002 of an additional U.S.\$55 million 10 5/8% Senior Notes due 2007, which increased our cost of debt, and from an allowance of 4.1 million resulting from the fall in value of PGS stock.

Net debt was 201.7 million as of December 31, 2002 compared to 229.0 million as of December 31, 2001. This decrease was principally the result of a weaker dollar at the end of 2002 than at the end of 2001, since most of our debt is denominated in dollars. Gross financial expenses (excluding PGS allowance) were 32 million for 2002 compared to 27 million for 2001 primarily as a result of the issuance of senior notes. Financial income was 3 million for 2002 compared to 4 million for 2001, as a result of overnight deposits.

Foreign exchange gain was 7.9 million for 2002 compared to a foreign exchange loss of 1.4 million for 2001 due primarily to (i) the weakening of the U.S. dollar against the euro that began during the second quarter of 2002 and (ii) our hedging policy. In connection with hedging our currency exposure risks, we hedge the U.S. dollar by forward sales, which can have either a favorable or adverse impact on financial result due to the actual variation in the exchange rate for the euro and the U.S. dollar.

***Equity in Income (Losses) of Investees***

Income from investments accounted for under the equity method decreased to 6.4 million for 2002 from 8.8 million for 2001, primarily due to the particular strong performance of Argas, our Saudi Arabian joint venture, in 2001.

***Income Taxes***

Income taxes were essentially stable at 17.4 million for 2002 compared to 16.8 million for 2001. We are not subject to a worldwide taxation system, and the income tax paid in foreign countries, mainly based on revenues, does not generate comparable tax credits in France, our principal place of business.

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***Net Income (Loss)***

Net income for 2002 was 17.4 million, after deducting minority interest of 2.2 million resulting from our 50% interest in the entity that was formed for the purpose of directly owning the *CGG Mistral*, compared to a net income of 15.7 million for 2001.

**Year ended December 31, 2001 Compared to Year ended December 31, 2000**

***Operating Revenues***

Our consolidated operating revenues increased 15% to 803 million in 2001 from 695 million in 2000. The increase was primarily attributable to greater sales of seismic equipment, particularly land seismic equipment, as well as additional revenues from our Offshore SBU resulting from the increase in our acquisition capacity following the purchase of the two vessels from Aker in January 2001.

*Services*

Operating revenues for our Services segment (excluding internal sales) increased 11% to 512 million in 2001 from 459 million in 2000. This increase was due primarily to increased marine seismic survey activity by our Offshore SBU resulting from the acquisition of the two vessels noted immediately above.

*Land SBU.* Operating revenues for our Land SBU increased 2% to 202 million in 2001 from 197 million in 2000. The modest increase reflected the limited recovery of the worldwide market for seismic services, primarily in the area of land-based seismic surveys in North America and the Middle East. As we have a strong position in the Middle East, the recovery resulted in slightly improved revenues for our Land SBU, even though the recovery did not extend to regions outside of North America and the Middle East.

*Offshore SBU.* Operating revenues for our Offshore SBU increased 34% to 202 million in 2001 from 151 million in 2000. The increase was due primarily to increased marine seismic survey activity resulting from our additional acquisition capacity with the purchase of two vessels from Aker, the *CGG Symphony* and the *CGG Amadeus*. We estimate that operating revenues of our Offshore SBU were approximately 9 million lower than they would have been due to adverse weather conditions off the coast of Morocco during the second quarter of 2001.

Multi-client data sales remained relatively constant at 99 million in 2001 compared to 98 million in 2000. Total sales of multi-client surveys, including land multi-client surveys, exceeded related capital investments by 29 million in 2001 compared to 10 in 2000. Exclusive contracts accounted for 57% of our marine seismic sales in 2001, compared to 35% of such sales in 2000, reflecting a stronger market for exclusive surveys, particularly in the North Sea and Gulf of Mexico.

*Processing & Reservoir SBU.* Operating revenues for our Processing & Reservoir SBU decreased by 3% to 108 million in 2001, compared to 111 million in 2000. During 2001, our Processing & Reservoir SBU was subject to adverse pricing pressures resulting from continued high levels of processing capacity available to our customers.

*Products*

Operating revenues for our Products segment increased 25% to 321 million in 2001 from 257 million in 2000, notwithstanding the sale of our software division at the end of 2000. The increase was due primarily to growth in sales of onshore acquisition systems, including strong sales of our 408 UL system. For Sercel only (equipment sales), total revenues increased 32% from year to year, to 321 million in 2001 from 244 million in 2000, reflecting the continuing strength of the 408 UL system. Excluding intra-group sales, revenues increased 23% to 291 million in 2001 compared to 237 million in 2000.

***Operating Expenses***

Cost of operations, including depreciation and amortization, increased 11% to 642 million in 2001 from 580 million in 2000. As a percentage of operating revenues, cost of operations decreased to 80% in 2001



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compared to 83% in 2000 due to improvements in our cost and operational efficiency, principally with respect to our Land SBU. Gross profit increased to 161 million in 2001 from 115 million in 2000.

Selling, general and administrative expenses increased 4% to 92 million in 2001 from 88 million in 2000. As a percentage of operating revenues, selling, general and administrative costs decreased to 11% in 2001 compared to 13% in 2000, resulting from realization of the full effect of our 1999 restructuring programs, notwithstanding an increase in volume due to the integration of Mark Products and the Aker vessels.

Research and development expenditures, net of government grants, increased 30% to 35 million in 2001, compared to 27 million in 2000 and representing 4% of operating revenues in both periods.

Other income amounted to 14 million in 2001. This amount included gains of 8 million related to the sale of our interest in one of our Gulf of Mexico multi client surveys, and non-recurring gains of 5 million. These gains came mostly from the sale of our radio positioning businesses and net restructuring credits that were offset by anticipated Land SBU contract losses in Argentina. In 2000, other income also amounted to 14 million. This amount included gains of 2 million related to sales of fixed assets, and non-recurring gains of 15 million related to partial sales of businesses, offset by non-recurring expenses of 3 million related to net restructuring credits.

### ***Operating Income (Loss)***

We generated operating income of 48 million in 2001, compared to 14 million in 2000. Our Services segment generated an operating loss of 1 million in 2001, compared to an operating loss of 14 million in 2000. Operating income for our Services segment was affected by adverse weather conditions off the coast of Morocco during the second quarter of 2001, which we estimate reduced operating income by approximately 9 million. Our Products segment generated operating income of 66 million, a record level, in 2001 compared to 37 million in 2000.

### ***Financial Income and Expenses, Net***

Net interest expense increased 44% to 23 million in 2001 from 16 million in 2000. This was due to an increase in average net debt outstanding to 217 million in 2001 compared to 154 million in 2000, principally as a result of our issuance of U.S.\$170 million of 10 5/8% Senior Notes due 2007 in November 2000. A February 2002 issuance of an additional U.S.\$55 million 10 5/8% Senior Notes due 2007, the first interest payment for which will be due in May 2002, will further increase our interest expense. Net debt totalled 229 at December 31, 2001 compared to 204 million at December 31, 2000.

Gross financial expenses were 27 million compared to 19 million in 2000, as a result of increased borrowings to finance operations. Financial income, resulting primarily from overnight deposits, was 4 million compared to 3 million in 2000.

Foreign exchange losses decreased to 1 million in 2001 compared to 6 million in 2000 primarily due to favorable hedges, particularly on increased Product segment sales. In connection with hedging our currency exposure, U.S. dollars are hedged by forward sales, which can have either a favorable or unfavorable impact due to the variation of expected future exchange rates for the euro and the U.S. dollar.

### ***Equity in Income of Investees***

Income from investments accounted for under the equity method was 9 million in 2001 compared to 3 million in 2000, due primarily to the improved financial performance of Argas, our Saudi Arabian joint venture.

### ***Income Taxes***

Income taxes increased 55% to 17 million in 2001 from 11 million in 2000, principally due to our higher levels of activity during the period, particularly in certain countries where our operations are subject to taxation based on revenues or by means of withholding. Additionally, increased income attributable to our interest in Argas resulted in higher tax charges for the parent company.

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Since we earn the majority of our taxable income outside of France, foreign taxation significantly affects our overall income tax expense. We are not subject to a worldwide taxation system and the income tax paid in foreign countries, mainly when based on revenues, does not generate comparable tax credits in France, our principal place of business.

### ***Net Income (Loss)***

The year 2001 marked a return to profitability, as our net income in 2001 was 16 million compared to a net loss of 12 million in 2000 after including minority interest income of 0.2 million in 2001 relating to the entity that directly owns the *CGG Mistral* and 4 million in 2000, relating to CGG Marine.

### **Liquidity and Capital Resources**

Our principal needs for capital are the funding of ongoing operations, capital expenditures, investments in our multi-client data library and acquisitions. We have financed our capital needs with cash flow from operations, borrowings under bank facilities and more recently, our offerings of senior notes. We believe that net cash provided by operating activities, the additional financial resources generated by our offerings of senior notes and available borrowings under bank facilities will be sufficient to meet our liquidity needs for the foreseeable future.

### ***Operating Activities***

For 2002, our net cash provided by operating activities, before changes in working capital and the asset write-down of 62 million related to the *CGG Mistral*, was 161.2 million compared to 153.3 million for 2001. Changes in working capital in 2002, before insurance indemnities booked approximately for the same amount of the asset write down, had a positive impact on cash from operating activities of 57.8 million compared to a negative impact of 17.3 million for 2001. This was principally attributable to important payments from Offshore clients at year end and improved management of our accounts receivable.

Net operating cash flow for 2002 was 219.0 million compared to 136.0 million for 2001.

For 2001, our net cash provided by operating activities was 136 million, compared to 25 million for 2000, which was principally attributable to improvement in our operating income and a decrease in our working capital needs in 2001. Changes in working capital in 2001 had a negative impact on cash from operating activities of 17 million compared to a negative impact of 93 million in 2000. Our working capital needs decreased largely due to improved management of our accounts receivable.

### ***Investing Activities***

During 2002, we incurred capital expenditures of 130.6 million (including 8.6 million of equipment acquired under capital lease), related primarily to the upgrading of the *CGG Mistral*, the investment in Solid Seal technology for our *Amadeus* seismic vessel and the acquisition of 408UL seismic data recording systems.

During 2002, we also invested 130.1 million in our multi-client library, primarily in deepwater areas offshore in the Gulf of Mexico and Brazil. As of December 31, 2002, the net book value of our land and marine multi-client data library was 127.1 million compared to 91.9 million as of December 31, 2001.

Net cash used in investing activities was 249.9 million after taking into account the acquisition of 7.51% stake in PGS, the proceeds from the sale of our Paradigm stock and the proceeds from the sale of our borehole seismic activity business.

At December 31, 2002, our commitments for capital expenditures were in an amount of 6 million and related primarily to geophysical equipment.

During 2001, we incurred capital expenditures of 42 million related primarily to purchases of geophysical equipment, and 13 million related to equipment obtained under capital lease financings (non-cash transactions). During 2001, we invested 79 million in our multi-client library, primarily in strategic deepwater areas offshore from the Gulf of Mexico and Brazil. At December 31, 2001, the net book value of both our

marine and land multi-client library was 92 million.

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During 2000, we incurred capital expenditures of 33 million related primarily to purchases of geophysical equipment, and 6 million related to equipment obtained under capital lease financings (non-cash transactions). In the same year, we invested 93 million in our multi-client library, primarily in strategic deepwater areas offshore from the Gulf of Mexico and Brazil. During this period, we expanded our multi-client library by over 20,000 square kilometers of 3D data. At December 31, 2000, the net book value of both our marine and land multi-client library was 76 million.

### ***Financing Activities***

Net debt was 201.7 million as of December 31, 2002, and 229.0 million as of December 31, 2001. The ratio of net debt to equity decreased to 46.1% at the end of December 2002 compared to 49.5% at the end of December 2001.

Adjusted EBITDA for 2002 was 210 million compared to 201 million for 2001.

Net cash provided by financing activities for 2002 was 68.9 million, resulting principally from the U.S.\$55 million issuance of senior notes in February 2002. We also borrowed a total of U.S.\$36.9 million from new bank facility in order to finance streamers and equipment related to the upgrade the *CGG Mistral*. An amount of U.S.\$20 million was repaid in the first quarter of 2003 with the insurance proceeds after the sinking of the vessel.

Net cash provided by financing activities in 2001 was a negative 8 million, principally reflecting the net repayment of draw-downs under our U.S.\$90 million syndicated credit facility, notwithstanding the U.S.\$25 million paid to Aker as part of the purchase price of the two vessels acquired in January 2001.

Net cash provided by financing activities in 2000 was 83.7 million, primarily related to our first offering of senior notes described above, which replaced part of our bank debt and increased our available cash.

On February 5, 2002, we issued an additional U.S.\$55 million aggregate principal amount at par value of 105/8% Senior Notes due 2007 in the international capital markets. With the net proceeds of approximately U.S.\$52.5 million, we repaid approximately U.S.\$22 million of outstanding indebtedness under our existing syndicated credit facility, repaid approximately U.S.\$10 million in other long-term revolving debt and used the balance for general corporate purposes.

On November 22, 2000, we issued U.S.\$170 million aggregate principal amount of 10 5/8% Senior Notes due 2007 in the international capital markets. We used the approximately \$164.9 million of net proceeds to repay a portion of outstanding indebtedness under our existing syndicated credit facility and to fund the U.S.\$25 million cash portion of the purchase price of two marine seismic vessels and certain seismic data from an affiliate of Aker.

On August 31, 2000, we signed an agreement with our bank syndicate, including Royal Bank of Canada as a new participant, to extend our main syndicated line of credit from U.S.\$130 million to U.S.\$180 million. The additional U.S.\$50 million tranche C was entirely subscribed by Royal Bank of Canada, and expired in November 2000 upon repayment in full of Tranche C with a portion of the net proceeds from our offering of senior notes in November 2000. We accepted certain additions to the collateral to this line of credit and consequently pledged in favor of the banks the shares of Sercel Holding S.A. This pledge expired automatically on September 30, 2001.

On September 15, 1999, we entered into a new multi-currency U.S.\$130 million syndicated credit facility with a group of banks led by Société Générale and Natexis Banques Populaires. The facility consolidated and replaced approximately 80% of our existing bank lines at that date and consists of a five-year U.S.\$90 million tranche, which began amortizing after September 15, 2002, and a U.S.\$40 million tranche due in two years (which we repaid). The syndicated credit facility bears interest at a graduated rate beginning with a spread of 175 basis points over three-month LIBOR, PIBOR or EURIBOR until September 15, 2000 and averages 150 basis points over these rates for the life of the loan thereafter. We agreed to limitations on our net debt compared to equity, excluding goodwill, (1.3, 1.15 and 1.0 for the periods ending June 30, 2000, June 30, 2001 and June 30, 2004, respectively), to the maintenance of a net debt to EBITDA ratio (3.0, 2.5 and 2.0 for the periods ending



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June 30, 2000, June 30, 2001 and June 30, 2004, respectively), to a minimum net worth test (minimum equity of 122 million, 137 million and 160 million for the periods ending June 30, 2000, June 30, 2001 and June 30, 2004, respectively) and to the completion of a capital increase of not less than 46 million by December 31, 1999 as part of the syndicated facility. In addition, we granted the lenders under the syndicated facility a lien on the accounts receivable of CGG and Sercel S.A. in an amount up to the amount of any outstanding borrowings under these facilities.

On September 28, 2000, our shareholders approved the issuance of 352,237 new shares to Shaw Industries at a price of 75 per share as consideration for the purchase of the Mark Products division. The shares were issued on September 29, 2000. As a result of this issuance, our shareholders' equity increased by approximately 27 million.

On December 20, 2000, our shareholders approved, at an extraordinary shareholders meeting, the issuance of 413,969 new shares to LDA at a price of 69.3 per share as consideration for the purchase of LDA's 40% interest in our subsidiary CGG Marine, our acquisition of 50% of the capital stock of the entity that will directly own the CGG Mistral and the subsequent upgrade of the CGG Mistral from six to ten streamers. The shares were issued on December 21, 2000. As a result of the issuance, our shareholders' equity increased by approximately 29 million.

On December 20, 2000, our shareholders approved, at the same extraordinary general meeting of shareholders, the issuance of 1,591,407 new shares to Aker at a price of 69.3 per share as part of the consideration for our acquisition of two marine vessels and certain seismic data from an affiliate of Aker. The shares were issued upon the closing of the transaction, which occurred on January 16, 2001. As result of the issuance, our shareholders' equity increased by approximately 110 million.

*Contractual Obligations*

The following table sets forth our future cash obligations as of December 31, 2002.

	Payments Due by Period				Total
	Less than 1 year	2-3 years	4-5 years	After 5 years	
	(in million)				
Long-Term Debt	41.9	7.4	217.4	1.9	268.6
Capital Lease Obligations	14.6	15.6	10.6		40.8
Operating Leases	47.9	54.9	39.2	2.8	144.8
Other Long-Term Obligations (bond interest)	23.0	45.6	45.6		114.2
	<u>127.4</u>	<u>123.5</u>	<u>312.8</u>	<u>4.7</u>	<u>568.4</u>
Total Contractual Cash Obligations	127.4	123.5	312.8	4.7	568.4

**Research and development**

Our ability to compete effectively and maintain a significant market position in our industry depends to a substantial extent upon our continued technological innovation. We have focused on rationalizing our research and development activities both to reduce costs and to focus our research and development efforts primarily on reservoir characterization, multi-component seabed seismic processing techniques, structural imaging and advanced seismic recording equipment. Our research and development teams, totaling approximately 200 employees, are divided among operating division. We also access new sources of information or technology by entering into strategic alliances with equipment manufacturers, oil and gas companies, universities, or other clients or by acquiring technology under license from others. We have historically entered into and continue to pursue common research programs with the *Institut Français du Pétrole*, an agency of the French government.

While the market for our products and services is subject to continual and rapid technological changes, development cycles from initial conception through introduction can extend over several years.

Our efforts have resulted in the development of numerous inventions, new processes and techniques, many of which have been incorporated as improvements to our product lines. During 2000, 2001 and 2002, our research



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and development expenditures were 30 million, 39 million, and 30 million, respectively, of which approximately 12%, 9% and 10%, respectively, was funded by French governmental research entities, such as the *Fonds de Soutien aux Hydrocarbures* (which funding is to be repaid to such organizations from sales of products or services developed with such funds).

We have budgeted 28 million for research and development expenditures in 2003, of which we expect to receive approximately 3 million from the *Fonds de Soutien aux Hydrocarbures*.

## **Trend Information**

### ***Euro***

We operate in an essentially U.S. dollar-denominated environment in which the introduction of the euro has had limited consequences. On January 1, 1999, 11 member states of the European Union, including France, where we have our headquarters, adopted fixed exchange rates between their national currencies and the euro. On January 1, 2002, the euro became the official currency of 12 European Union countries. As a result, their national currencies (including the French franc) ceased to exist during the year.

As part of our ongoing systems updates, we have made the necessary modifications to our existing information, financial and management control systems and software to permit us to bill, invoice and report in euro. As of January 1, 2001 we adopted the euro as our reporting currency. The total cost of addressing the euro issue has not been material to our financial condition, results of operations or liquidity.

### ***Currency Fluctuations***

As a company that derives a substantial amount of its revenue from sales internationally, we are subject to risks relating to fluctuations in currency exchange rates. In the year ended December 31, 2002 and the years ended December 31, 2001 and 2000 over 90% of our operating revenues and approximately two-thirds of our operating expenses were denominated in currencies other than the euro. These included the U.S. dollar and, to a significantly lesser extent, other non-euro Western European currencies, principally the British pound and the Norwegian kroner. In addition, a significant portion of our revenues that were invoiced in euros related to contracts that were effectively priced in U.S. dollars, as the U.S. dollar often serves as the reference currency when bidding for contracts to provide geophysical services.

Fluctuations in the exchange rate of the euro against such other currencies, particularly the U.S. dollar, have had in the past and can be expected in future periods to have a significant effect upon our results of operations. Since we participate in competitive bids for data acquisition contracts that are denominated in U.S. dollars, an appreciation of the U.S. dollar against the euro improves our competitive position against that of other companies whose costs and expenses are denominated in U.S. dollars. For financial reporting purposes, such appreciation positively affects our reported results of operations since U.S. dollar-denominated earnings that are converted to euros are stated at an increased value.

We attempt to match foreign currency revenues and expenses in order to balance our net position of receivables and payables denominated in foreign currencies. For example, charter costs for our five vessels, as well as our most important computer hardware leases, are denominated in U.S. dollars. Nevertheless, during the past five years such dollar-denominated expenses have not equaled dollar-denominated revenues principally due to personnel costs payable in euros.

In order to improve the balance of our net position of receivables and payables denominated in foreign currencies, we maintain a portion of our financing in U.S. dollars. At December 31, 2002, 2001 and 2000 our total outstanding long-term debt denominated in U.S. dollars amounted to U.S.\$273 ( 260 million), U.S.\$181 million ( 203 million) and U.S.\$187 million ( 200 million), respectively, which amounted to 85%, 74% and 81%, respectively, of our total long-term debt outstanding at such dates.

In addition, to be protected against the reduction in value of future foreign currency cash flows, we follow a policy of selling U.S. dollars forward at average contract maturity dates that we attempt to match with future net U.S. dollar cash flows (revenues less costs in U.S. dollars) expected from firm contract commitments, generally

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over the ensuing six months. A similar policy, to a lesser extent, is carried out with respect to contracts denominated in British pounds. As of December 31, 2002, 2001 and 2000, we had U.S.\$133 million (the Euro counter-value under the contract was 137 million, U.S.\$89 million (the Euro counter-value under the contract was 101 million) and U.S.\$101 million (counter-value of 108 million), respectively, of notional amounts outstanding under euro/ U.S. dollar forward exchange contracts.

We do not enter into forward foreign currency exchange contracts for trading purposes.

### ***Inflation***

Inflation has not had a material effect on our results of operations during the periods presented. We operate in, and receive payments in the currencies of, certain countries with historically high levels of inflation, such as Mexico, Brazil, Indonesia and Venezuela. We attempt to limit such risk by, for example, indexing payments in the local currency against, principally, the U.S. dollar exchange rate at a certain date to account for inflation during the contract term.

### ***Income Taxes***

We conduct the majority of our field activities outside of France and pay taxes on income earned or deemed profits in each foreign country pursuant to local tax rules and regulations. We do not receive any credit in respect of French taxes for income taxes paid by foreign branches and subsidiaries. Net tax expenses in recent periods were attributable to activities, principally in land acquisition, carried on outside of France. We have significant tax loss carryforwards that are available to offset future taxation on income earned in certain OECD countries. We recognize tax assets if a minimum history of profit for the past three years exists and budget estimates also indicate a profit for the following year.

### ***Seasonality***

Our land and marine seismic acquisition activities are seasonal in nature. We generally experience decreased revenues in the first quarter of each year due to the effects of weather conditions in the Northern Hemisphere and to the fact that our principal clients are generally not prepared to fully commit their annual exploration budget to specific projects during such period. We have historically experienced higher levels of activity in our equipment manufacturing operations in the fourth quarter as our clients seek to fully deploy annual budgeted capital.

## **U.S. Accounting Standards**

In July 2001, the FASB issued SFAS No. 141, Business Combinations, and SFAS No. 142, Goodwill and Other Intangible Assets. Additionally, SFAS No. 141 requires the use of the purchase method of accounting for all business combinations initiated after June 30, 2001. SFAS No. 141 requires intangible assets to be recognized if they arise from contractual or legal rights or are separable, i.e., it is feasible that they may be sold, transferred, licensed, rented, exchanged or pledged. As a result, it is likely that more intangible assets will be recognized under SFAS No. 141 than under its predecessor, Accounting Principles Board ( APB ) Opinion No. 16, although in some instances previously recognized intangibles are to be subsumed into goodwill. SFAS No. 141 requires that upon adoption of SFAS No. 142, that companies reclassify the carrying amounts of certain intangible assets and goodwill based on the criteria of SFAS No. 141.

Under SFAS No. 142, goodwill is no longer amortized on a straight-line basis over its estimated useful life, but is tested for impairment on an annual basis and whenever indicators of impairment arise. The goodwill impairment test, which is based on fair value, is performed on a reporting unit level. A reporting unit is defined as a SFAS No. 131 operating segment or one level lower. Goodwill is no longer be allocated to other long-lived assets for impairment testing, under SFAS No. 121, Accounting for the Impairment of Long-lived Assets and Long-lived Assets to be disposed of. Additionally, goodwill on equity method investments is no longer amortized; however, it continues to be tested for impairment in accordance with APB Opinion No. 18, The Equity Method of Accounting for Investments in Common Stock. Under SFAS No. 142, intangible assets with indefinite lives are not amortized; instead they are carried at the lower of cost or market value and tested for impairment at least annually. All other recognized intangible assets continue to be amortized over their estimated useful lives.

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SFAS No. 142 is effective for fiscal years beginning after December 15, 2001, although goodwill on business combinations consummated after July 1, 2001 will not be amortized. We adopted SFAS No. 141 and 142 on January 1, 2002 and have not had to record any impairment.

In August 2001, the FASB issued SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets. SFAS No. 144 establishes a single accounting model for long-lived assets to be disposed of by a sale consistent with the fundamental provisions of SFAS No. 121. While it supersedes portions of APB Opinion 30, Reporting the Results of Operations – Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions, it retains the discontinued operations presentation, yet it broadens that presentation to include a component of an entity (rather than a segment of a business). However, discontinued operations are no longer recorded as net realizable value and future operating losses are no longer recognized before they occur. SFAS No. 144 also establishes criteria for determining when an asset should be treated as held for sale. SFAS No. 144 is effective for fiscal years beginning after December 15, 2001 and interim periods within those fiscal years, with an early application encouraged. The provisions of SFAS No. 144 are generally to be applied prospectively. We adopted SFAS No. 144 on January 1, 2002 and have not had to record any impairment.

**Item 6: DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES****Directors and Senior Management***Board of Directors*

Under French law, the Board of Directors determines our business strategy and monitors business implementation. Subject to the specific powers granted by the ordinary general shareholders' meeting, the Board of Directors deals with any issues relating to our affairs. In particular, the Board of Directors prepares and presents the year-end accounts to the ordinary general shareholders meeting. Our Board of Directors consists of between six and fifteen members elected by our shareholders. Each director must own at least one director-qualifying share. Under French law, a director may be an individual or a legal entity for which an individual is appointed as permanent representative.

Our *statuts* (memorandum and articles of association) provide that each director is elected for a six-year term by the ordinary general shareholders' meeting. There is no obligation for directors to be French nationals. According to French corporate law, the number of terms that a director may serve is limited to five.

Directors are required to comply with applicable law and our *statuts*. Under French law, directors are responsible for actions taken by them that are contrary to the company's interests and may be held liable for such actions both individually and jointly with the other directors.

The following table sets forth the names of our current directors, their positions, the dates of their initial appointment as directors (or, in the case of shareholder representatives, the date from which the shareholder became entitled to appoint a director) and the expiration dates of their current term.

Name	Position	Initially Appointed	Term Expires
Robert Brunck <sup>(1)(2)</sup>	Chairman of the Board and Chief Executive Officer	1998	2008
G�rard Fri�s <sup>(1)</sup>	Director	2002	2008
Robert Castaigne <sup>(1)(2)</sup>	Director	1992	2004
Jean Dunand <sup>(3)</sup>	Director	1999	2007
Yves Lesage <sup>(3)</sup>	Director	1988	2003
John MacWilliams <sup>(3)</sup>	Director	1999	2005
Claude Mandil	Director	2002	2008
Christian Marbach <sup>(3)</sup>	Director	1995	2007
Daniel Valot <sup>(2)</sup>	Director	2001	2006
Robert Semmens <sup>(1)(2)</sup>	Director	1999	2005



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(1) Member of Strategic Planning Committee.

(2) Member of Appointment-Remuneration Committee.

(3) Member of Audit Committee.

Mr. Brunck, 53, has been our Chairman and Chief Executive Officer since May 1999. Mr. Brunck was Vice Chairman and President from September 1998 to May 1999 and was our President and Chief Operating Officer from February 1995 to September 1998. Mr. Brunck was Vice President of Administration and Development from 1991 to 1995 and Chief Financial Officer from 1989 to 1991. He is President of the Supervisory Board of Sercel Holding, Chairman of CGG Americas Inc. and Director of the Ecole Nationale de Géologie and the Consortium Français de Localisation S.A., and Chairman of Armines.

Mr. Friés, 47, has been Senior Executive Vice President of Institut Français du Pétrole since September 2001. Mr. Friés was Vice President of the geoscience research center of Totalfina Exploration UK plc from 1999 to September 2001 and was a Director of Elf Gabon from 1997 to 1999. Mr. Friés is Chairman and CEO of CPX Holding, the representative of CPX Holding on the Board of Directors of Geoservices S.A. a Director of Axens S.A and a member of the Supervisory Board of RSI.

Mr. Castaigne, 56, has been Chief Financial Officer and a member of the Executive Committee of TotalFinaElf since 1994. Mr. Castaigne is Chairman of the Board of Directors of Total Chimie and Total Nucléaire and is a Director of TEP Algérie, Omnium Insurance and Reinsurance Company Limited; Société Financière d Auteuil; Total Nigeria Ltd; Total Fina Elf Exploration Norge; Total Fina Elf Holdings UK; Total Fina Elf Exploration UK; Hutchinson; Eramet; Petrofina; Sanofi Synthelabo; Atofina and Elf Aquitaine.

Mr. Dunand, 63, was Financial and Legal Director of ISIS from 1999 to December 2001. Mr. Dunand was Deputy General Manager (Russia and CIS) of Total Exploration-Production from 1994 to 1999. Mr. Dunand is the Controller of Ipedex Développement.

Mr. Lesage, 65, has been CGG Honorary Chairman since May 1999. Mr. Lesage was Chairman and Chief Executive Officer of CGG from January 1995 to May 1999. Mr. Lesage was Chairman, President and Chief Executive Officer of SOGERAP from 1994 to 1995. Mr. Lesage is a Director of Bureau de Recherches Géologiques et Minières and is President of the Comité d Etudes Pétrolières & Marines and of the Comité Industriel Statutaire de l Amont IFP.

Mr. MacWilliams, 47, has been a Partner of The Beacon Group LLC since 1993. Mr. MacWilliams is a director of Alliance Resource Partner L.P., Soft Switching Technologies Inc. and Titan Methanol Company.

Mr. Mandil, 61, is Executive Director of the International Energy Agency and a member of the Supervisory Board of Technip-Coflexip.

Mr. Marbach, 65, Ingénieur des Mines, was Advisor to the General Management of Suez-Lyonnaise des Eaux from 1996 to 2000. Mr. Marbach was Chairman and Chief Executive Officer of Coflexip and Coflexip Stena Offshore from 1991 to 1996. Mr. Marbach is a member of the Supervisory Board of Lagardère and is a Director of Erap, Supervisor of Sofinnova and President of the Small and Medium Size Business Agency, a private sector group.

Mr. Valot, 58, has been Chairman of the Management Board of Technip-Coflexip since December 2001. Mr. Valot was Chairman and Chief Executive Officer of Technip from 1999 to December 2001. Mr. Valot was President of Total Exploration and Production, and was a member of the TOTAL Group Executive Committee from 1995 to 1999. Mr. Valot is Chairman of the Management Board of Technip-Coflexip and of the Supervisory Board of Technip Germany a Director of Institut Français du Pétrole and of Coflexip, Chairman of Technip Americas, President of Technip Far East and Technip Italy and is a permanent representative of Technip-Coflexip to the Board of Directors of Technip France.

Mr. Semmens, 45, is an independent consultant and was Managing Director of The Beacon Group LLC from 1993 to 2000. Mr. Semmens is a Director of Khanty Mansysk Oil Corporation and is a member of the Supervisory Board of Sercel Holding.

**Table of Contents*****Executive Officers***

Under French law and our current *statuts*, the Chairman and Chief Executive Officer has full executive authority to manage our affairs. The Board of Directors has the power to appoint and remove, at any time, the Chairman and Chief Executive Officer. Pursuant to French law and our current *statuts*, the Chairman and Chief Executive Officer, where those functions are exercised by the same person, has full power to act on our behalf and to represent us in dealings with third parties, subject only to those powers expressly reserved by law to the Board of Directors or our shareholders. The Chairman and Chief Executive Officer determines and is responsible for the implementation of the goals, strategies and budgets for our different businesses, which are reviewed and monitored by the Board of Directors. In accordance with French corporate law, our current *statuts* provide for the election by the Board of Directors of one person to assume the position of Chairman and Chief Executive Officer or the division of such functions between two different persons. In its session of May 15, 2002, the Board of directors decided that Mr Brunck would assume the position of Chairman and Chief Executive Officer until the expiry of his term as a director, unless otherwise decided by the Board. Our current *statuts* provide that the Board of Directors may appoint up to five President and Chief Operating Officers ( Directeurs Généraux Délégués ) upon proposal of the Chief Executive Officer, whether or not this position is assumed by the Chairman of the Board.

The following table sets forth the names of our current executive officers who serve as members of our Executive Committee and Group Management Committee and as Secretary of the Comité de Direction du Groupe, their current positions with us and the first dates as of which they served as our executive officers.

***Comité Exécutif (Executive Committee)***

Name	Current Position	Executive Officer Since
Robert Brunck	Chairman and Chief Executive Officer	1989
Gérard Chambovet	Senior Executive Vice President, Services	1995
Thierry Le Roux	Senior Executive Vice President, Products	1995
Michel Ponthus	Senior Executive Vice President, Finance and Human Resources and Chief Financial Officer	1995
Christophe Pettenati-Auzière	Senior Executive Vice President, Strategy, Planning and Control	1997

Mr. Chambovet, 50, has been Senior Executive Vice President of our Services segment since October 1998. Mr. Chambovet was Executive Vice President of our Acquisition Product line from March 1995 to October 1998 and was Manager of our data processing center in Massy, France from 1987 to 1995.

Mr. Le Roux, 49, has been Senior Executive Vice President of our Products segment since October 1998. Mr. Le Roux was Executive Vice President of CGG's Geophysical Equipment operations from March 1995 to October 1998. Mr. Le Roux was Business Development Manager from 1992 to 1995 and Far East Manager from 1984 to 1992.

Mr. Ponthus, 56, has been Senior Executive Vice President, Finance and Human Resources, and Chief Financial Officer since October 1998. Mr. Ponthus was our Chief Financial Officer from March 1995 to October 1998 and prior to joining CGG, Mr. Ponthus was Administrative and Financial Vice President of Petitjean Industries from 1990 to 1995.

Mr. Pettenati-Auzière, 50, has been Senior Executive Vice President, Strategy, Planning and Control since January 2001. Mr. Pettenati-Auzière was Senior Executive Vice President of our Offshore SBU from July 1999 to January 2001, Vice President of Business Development and Investor Relations from December 1998 to July 1999 and Vice President of Seismic Acquisition from April 1997 to December 1998. He was Executive Vice President of International Operations for Coflexip from 1990 to 1996.



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The following table sets forth the names of the executive officers who, together with the Executive Committee, constitute the Group Management Committee, their current positions, and the dates as of which they were first appointed.

**Comité de Direction du Groupe (Group Management Committee)**

Name	Current Position	Executive Officer Since
Guillaume Cambois	Executive Vice President, Data Processing and Reservoir SBU	2001
Jean Charot	Executive Vice President SBU Offshore	2002
Dominique Robert	Executive Vice President, Land SBU	2000
Pascal Rouiller <i>Secretary of the Management Committee</i>	Chief Operating Officer, Sercel Group	1997
Annick Laroche	Vice President	1996

Mr. Cambois, 38, has been Executive Vice President, Processing and Reservoir SBU, since July 2001. Mr. Cambois was Vice President, Processing SBU Technology from 1999 to 2001, Manager of the Calgary processing center from 1998 to 1999 and Manager of Research and Development of the Houston processing center from 1995 to 1998.

Mr. Charot, 52, has been Executive Vice President of our Offshore SBU since June 2002. Mr. Charot was President of CGG Marine from December 1999 to June 2002 and Managing Director BSD Division from 1998 to December 1999.

Mr. Robert, 51, has been Executive Vice President of our Land SBU since December 2000. Mr. Robert was chief operating officer of Flagship from January 2000 to December 2000 and Vice President of the Asia Pacific Region from September 1995 to January 2000.

Mr. Rouiller, 49, has been Chief Operating Officer of the Sercel Group since December 1999. Mr. Rouiller was Vice President of our Product segment from October 1995 to December 1999 and Vice President of the Asia Pacific Region from May 1992 to September 1995.

Mrs. Laroche, 53, has been Vice President since January 1999. Mrs. Laroche was Vice President of CGG's Software Product line from April 1996 to December 1998 and was Vice President of Petrosystems (renamed Flagship) from 1994 to 1996.

**Compensation**

The aggregate compensation of our executive officers is determined by the Appointment-Remuneration Committee of the Board of Directors in order to ensure the competitiveness of our compensation compared to our international competitors. The Appointment-Remuneration Committee refers to benchmarks prepared by independent consultants at the request of the general management. The aggregate compensation includes a fixed element and a bonus. The amount of the bonus depends upon the achievement of financial targets for items such as consolidated net income, operating income and free cash flow of our various activities and upon completion of certain individual qualitative objectives. With this bonus, the aggregate compensation may substantially vary from one year to another. The bonus due to the general management for a given fiscal year is paid during the first semester of the next fiscal year.

The aggregate compensation as a group of the executive officers (including the Chairman and Chief Executive Officer) who were members of the Group Management Committee paid in fiscal year 2002 was 2,581,761, including the 2001 bonus. The aggregate compensation of Mr. Brunck, Chairman and Chief Executive Officer, for the fiscal year ended December 31, 2002 was 504,305 of which 30% represented his 2001 bonus. In addition, Mr. Brunck received 23,611 in his capacity as a Director. Directors as a group received in January 2003 aggregate compensation of 150,000 for services provided in their capacity as such during the fiscal

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year ended December 31, 2002. No amounts were set aside or accrued by us or our subsidiaries to provide pension, retirement or similar benefits to the executive officers or directors.

**Board Practices**

We employ our executive officers under standard employment services agreements that have no fixed term. Directors' service contracts do not provide for benefits upon termination.

The Strategic Planning Committee, chaired by Mr. Brunck, is in charge of studying our strategic plans and our financial transactions projects.

The Audit Committee is chaired by Mr. Marbach. The other members are Mr. Dunard, Mr. Lesage and Mr. MacWilliams. It ensures that the accounts are prepared using consistent and appropriate accounting methods, examines the effectiveness of our internal reporting and verifies the internal audit and the external auditors' plan of review. This committee provides advice on the appointment or renewal of our external auditors and reviews any specific financial or accounting matter that appears to be relevant or topical.

As part of its mission, the Audit Committee reviews the most important audit assignments as well as those whose conclusions are the basis for important decisions. The Audit Committee reviews the way its recommendations have been implemented.

Sessions of the Audit Committee are open to the members of the Executive Committee, the external auditors (in order to report on their audit reviews) and the Internal Audit Vice-President (in order to review important assignments).

The Audit Committee customarily meets before each Board meeting. During 2002, the Committee met five times. In the course of such meetings, the Audit Committee reviewed the draft 2001 accounts, the semi-annual accounts and the updated forecasts of the financial year, in each case before they were presented to the Board. The Audit Committee informed the Board of its opinion on such accounts and forecasts. As part of its mission, the Audit Committee also met with our external auditors who communicated to the Audit Committee the scope and results of their work. The Audit Committee was consulted when we issued U.S.\$ 55 million aggregate principal amount of 10 5/8% Senior Notes in February 2002, which notes were issued in addition to the outstanding Senior Notes issued in November 2000. Finally, the Audit Committee reviewed our 2003 budget.

The Audit Committee also reviewed our internal audit activities, which internal audit activities are based on a program determined by our Executive Committee and presented to the Audit Committee. This program is prepared as a function of our operational and financial risks and on the basis of a systematic review of the entities in each SBU every three years.

In addition, the Audit Committee regularly examines our multi-clients surveys and, particularly, financing rates in order to verify whether such rates comply with budget forecasts and assess the fair value of such surveys recorded in our balance sheet.

The Audit Committee has also been in charge of the selection of a new statutory auditor, through a tender offer process launched by us, in order to replace one of the two current statutory auditors as a result of the contemplated merger, in France, of Ernst & Young and Barbier Frinault et Autres. The Audit Committee made a recommendation to the Board of Directors, which in turn proposed the election of the external auditors to our ordinary general shareholders' meeting (to be held on May 15, 2003), as required by French law.

Finally, the Audit Committee studied the consequences for us (and for the Audit Committee itself) of the Sarbanes Oxley Act of 2002.

The Appointment-Remuneration Committee, chaired by Mr. Semmens, proposes to the Board of Directors the remuneration of the Chairman and Chief Executive Officer and the officers, as well as any stock option plans and employee shareholding plans. This Committee also reviews proposals for appointments of directors, members of the committees and any Senior Executive Vice President.

**Table of Contents****Employees**

As of December 31, 2002, we had approximately 3,440 permanent employees worldwide, as well as several thousand auxiliary field personnel on temporary contracts. Approximately 2,418 of our employees are involved in our Services segment and 1,022 in our Products segment. We have never experienced a material work stoppage and consider our relations with our employees to be good. We believe that our highly educated and experienced staff constitutes one of our most valuable assets. We permanently employ more than 2,500 technicians and persons holding engineering degrees and have developed a significant in-house training program.

In accordance with French law for employees employed under French contracts, we, and each of our French subsidiaries have a *Comité d'Entreprise* (Employees Representation Committee) consisting of representatives elected by our employees. The Employees Representation Committee reports regularly to employees, represents employees in relations with management, is consulted on significant matters relating to employee working conditions and is regularly informed of economic developments.

Our total workforce has decreased from 3,490 at December 31, 2001 to 3,440 at December 31, 2002 (before the effective transfer in February 2003 of 95 employees as a consequence of the sale of our borehole seismic division to Baker Hughes). Our total workforce at December 31, 2000 was 3,285. We are preparing for the future by intensifying on a permanent basis our training program, thus putting the emphasis on strengthening the technical and personal skills available to us. In France, the regulations pertaining to reduced working hours were implemented in their entirety in 2000.

**Share Ownership**

In accordance with French law, we are authorized annually by our shareholders at the extraordinary general meeting to issue ordinary shares for sale to our employees and employees of our affiliates who elect to participate in our *Plan d'Epargne Entreprise Groupe* (Group Employee Savings Plan) (the Group Plan). Our shareholders, at the extraordinary general meeting held on May 15, 2002, renewed our authorization to issue up to 500,000 ordinary shares in sales to employees and affiliates who participate in the Group Plan. We may offer ordinary shares pursuant to the Group Plan at a price neither higher than the average market price for the 20 business days preceding the date on which the Board of Directors set the commencement date for the offering nor lower than 80% of such average market price.

We intend to establish employee savings plans for our other international subsidiaries on terms similar to the Group Plan, subject to applicable local regulations, in order to issue ordinary shares to employees of such subsidiaries, particularly in North America and Europe.

Pursuant to resolutions adopted by our Board of Directors on May 5, 1997, January 18, 2000, March 14, 2001 and May 15, 2002, our Board of Directors has granted options to certain of our employees, executive officers and directors to subscribe for an aggregate of 725,100 ordinary shares. This total has been adjusted pursuant to French law and the terms of the options to total 738,310. Options with respect to 647,063 ordinary shares remained outstanding at March 31, 2003. The following table sets forth certain information relating to these stock option plans as of March 31, 2003:

<b>Date of Board of Directors Resolution</b>	<b>Options Granted</b>	<b>Options Exercised (Ordinary Shares) at March 31, 2003</b>	<b>Options Outstanding at March 31, 2003<sup>(1)</sup></b>	<b>Exercise price per Ordinary Share</b>	<b>Expiration Date</b>
May 5, 1997	100,000 <sup>(2)</sup>	14,148	57,863 <sup>(3)</sup>	61.03 <sup>(3)</sup>	May 4, 2005
January 18, 2000 <sup>(4)</sup>	231,000		214,250	49.90	January 17, 2008
March 14, 2001 <sup>(5)</sup>	256,000		242,000	71.20	March 13, 2009
May 15, 2002 <sup>(6)</sup>	138,100		132,950	43.47	May 14, 2010
<b>Total</b>	<b>725,100</b>	<b>14,148</b>	<b>647,063</b>		



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- (1) The stock option plans provide for the cancellation of the options if the holder is no longer our employee, director or officer. As of March 31, 2003 the number of options so canceled was 73,892.
- (2) Pursuant to French law and the terms of the stock option plans, the numbers of options granted and the exercise price were adjusted following our rights offering in December 1999.
- (3) As adjusted for our capital increase effected in December 1999 pursuant to French law.
- (4) Options under the 2000 plan cannot be exercised before January 2003.
- (5) Options under the 2001 plan vest by one-fifth each year from March 2001 and cannot be exercised before March 14, 2004.
- (6) Options under the 2002 plan vest by one-fifth each year from May 2002 and cannot be exercised before May 16, 2005.

As of March 31, 2003, options to purchase an aggregate of 326,897 ordinary shares were held by directors and executive officer members of our Management Committee. None of the directors and executive officers holds, on an individual basis, options giving right to acquire 1% or more of the outstanding capital. At the extraordinary general shareholders meeting to be held on May 15, 2003, a new stock option plan will be submitted to the approval of shareholders whereby options to purchase up to 7% of our share capital outstanding on the date of allocation may be granted in one or several allocations by the Board of Directors to certain of our employees and executive officers during the 38-month period following the plans approval.

**Item 7: MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS****Major Shareholders**

The table below sets forth certain information with respect to (i) groups known to us to own a significant percentage of our securities and (ii) the total number of shares of our common stock (called ordinary shares) owned by our directors and officers as a group, as of March 31, 2003 and for the past three years.

**Identity of Person or Group**

	March 31, 2003		December 31, 2002		December 31, 2001		December 31, 2000	
	% of shares	% of voting rights	% of shares	% of voting rights	% of shares	% of voting rights	% of shares	% of voting rights
The Beacon Group	15.21	20.55	15.21	20.53	15.21	23.26	17.62	15.55
Institut Français du Pétrole	12.30	10.57	12.30	10.56				
ISISTechnip-Coflexip					12.30	18.80	14.24	20.96
Total Chimie	4.02	6.9	4.02	6.90	4.02	5.16	4.65	6.89
ShawCor	3.02	5.18	3.02	5.18	3.02	2.30	3.49	3.08
Louis Dreyfus Armateurs	2.65	2.27	2.65	2.27	3.54	2.71	4.10	3.62
Directors and Officers <sup>(1)</sup>	*	*	*	*	*	*	*	*
Public	62.8	54.53	62.8	54.56	61.91	47.77	55.89	49.9

\* Less than 1%

- (1) As of March 31, 2003, the Directors and Officers held 21,352 ordinary shares. As of March 31, 2003, through the employees savings plan instituted in 1997, group employees held 57,300 ordinary shares corresponding to 0.49% of the share capital.

Our *statuts* provide that, as from May 22, 1997, each ordinary share that is fully paid and has been held in registered form by the same shareholder for a period of at least two consecutive years will entitle such shareholder to two votes at meetings of shareholders. As of March 31, 2003, The Beacon Group, IFP and Total Chimie held respectively 1,777,071, 1,436,622 and 469,392 fully paid ordinary shares in registered form for two consecutive years, giving Beacon Group Energy, IFP and Total Chimie respectively, 20.55%, 10.57% and 6.9% of the voting

power of the ordinary shares as of such date. Substantially all ordinary shares held by other

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shareholders are presently held in bearer form, and, even if converted to registered form, would not be eligible for double voting rights as of May 31, 2003. Therefore, excluding any ordinary shares issuable in connection with stock option plans or employee savings plans, Beacon Group Energy, IFP and Total Chimie would, if they sold no ordinary shares in the interim, hold in the aggregate approximately 38.02% of the voting power of the ordinary shares outstanding as of March 31, 2003.

Aker RGIF, the parent company of Aker Geo Seismic, which acquired, through contribution in kind, in January 2001, 1,591,417 shares representing 13.6% of our then outstanding capital, offered to the minority shareholders of Aker Maritime the opportunity to have their shares bought back by way of a distribution of CGG shares then held by Aker Maritime and a payment in cash. As a result thereof, as of January 2, 2002, Aker Maritime held less than 2% of our voting rights. To the best of our knowledge, Aker Maritime is no longer a shareholder in our company.

Total Chimie and ISIS executed a shareholders' agreement dated January 31, 1995. Pursuant to the shareholders' agreement, any sale to a third party of either signatory's stake in CGG that would reduce such signatory's holding to less than 10% of our total outstanding share capital as of January 1995 is subject to a right of first refusal by the other signatory. This right of first refusal does not apply in the event such sale is made to an affiliate of the selling signatory, provided that such affiliate becomes a party to the shareholders' agreement. The shareholders' agreement expired in July 2001.

On July 26, 2001, Technip, a French company, launched an offer to acquire ISIS, a holder of 12.3% of our outstanding common shares. As a result of the offer, Technip acquired 99.05% of the share capital of ISIS. In connection with this transaction, Technip, ISIS and Institut Français du Pétrole ( IFP ) entered into a memorandum of understanding, dated July 21, 2001 (as amended), pursuant to which ISIS agreed to hold our ordinary shares for one year from October 2001. During the subsequent three-year period, ISIS would either have the right to cause IFP to purchase our common shares currently owned by ISIS or be obligated to sell those common shares to IFP, in either case in exchange for Technip common shares, subject to market prices.

In June 2002, Technip-Coflexip and Isis merged, as a result of which our common shares owned by Isis were transferred to Technip-Coflexip. Pursuant to the terms of the memorandum of understanding between Technip-Coflexip and IFP, dated July 21, 2001, described above, Technip-Coflexip transferred its common shares of CGG to IFP on December 9, 2002.

## **Related Party Transactions**

We provide geophysical services and equipment to oil and gas exploration and production subsidiaries of the TotalFinaElf Group pursuant to contracts entered into on an arm's-length basis. Total Chimie is a member of the TotalFinaElf Group. Aggregate operating sales to this group amounted to 40 million in 2002, 60 million in 2001 and 56 million in 2000.

## **Interests of Experts and Counsel**

None.

## **Item 8: FINANCIAL INFORMATION**

### **Consolidated Statements and Other Financial Information**

Reference is made to Item 18 for a list of all financial Statements and notes thereto filed as a part of this annual report.

## **Item 9: THE OFFER AND LISTING**

### **Offer and Listing Details**

The trading market for our outstanding ordinary shares is the Premier Marché of Euronext Paris S.A., where the ordinary shares have been listed since 1981. American Depositary shares, or ADSs, representing ordinary shares have been traded on the New York Stock Exchange since May 1997. Each ADS represents one-fifth of one





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ordinary share. The ADSs are evidenced by American Depositary receipts, or ADRs, issued by The Bank of New York, as Depositary, and are traded under the symbol GGY. The Bank of New York has advised us that as of December 31, 2002, there were 826,990 ADSs outstanding, representing 165,398 ordinary shares which are held of record by five registered holders. On the basis of this information, the ADSs held on such date in the United States represented approximately 1.41% of our outstanding ordinary shares. Our by-laws provide that fully paid ordinary shares may be held in either registered or bearer form at the option of the shareholders.

**Price Information on Euronext Paris.**

The tables below set forth, for the periods indicated, the reported high and low prices for the outstanding ordinary shares on Euronext Paris. In accordance with the European Economic and Monetary Union regulations, as of January 1, 1999 all shares listed on Euronext Paris are traded in euro rather than French francs.

The table below indicates the high and low market prices for the most recent six months:

	Price per Share <sup>(1)</sup>	
	High	Low
	(euro)	
<b>2003</b>		
March	14.92	9.11
February	13.69	11.01
January	17.00	12.67
<b>2002</b>		
December	22.95	14.95
November	22.40	16.80
October	20.50	13.35

Note:

(1) Source: Euronext Paris.

The table below indicates the quarterly high and low market prices for the two most recent financial years:

	Price per Share <sup>(1)</sup>	
	High	Low
	(euro)	
<b>2003</b>		
First Quarter	15.20	10.93
<b>2002</b>		
First Quarter	44.69	33.16
Second Quarter	50.05	33.02
Third Quarter	38.60	16.25
Fourth Quarter	22.95	13.35
<b>2001</b>		
First Quarter	76.50	60.00
Second Quarter	82.50	58.05
Third Quarter	66.00	30.80
Fourth Quarter	48.50	32.00

Note:

(1) Source: Euronext Paris.

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The table below indicates the high and low market prices for the five most recent financial years:

	Price per Share <sup>(1)</sup>	
	High	Low
	(euro)	
2002	50.05	13.35
2001	83.00	30.00
2000	92.00	46.00
1999	64.00	34.00
1998	173.00	45.00

Note:

(1) Source: Euronext Paris.

***Price Information on the NYSE***

The table below sets forth, for the periods indicated, the high and low sale prices for the ADSs representing our ordinary shares on the New York Stock Exchange:

The table below indicates the high and low market prices for the most recent six months:

	High	Low
	(U.S.\$)	
<b>2003</b>		
March	2.12	3.05
February	3.00	2.30
January	3.62	2.75
<b>2002</b>		
December	4.45	3.02
November	4.01	3.42
October	3.94	2.50

The table below indicates the quarterly high and low market prices for the two most recent financial years:

	High	Low
	(U.S.\$)	
<b>2003</b>		
First Quarter	2.91	2.70
<b>2002</b>		
First Quarter	7.90	6.00
Second quarter	9.00	6.40
Third Quarter	7.31	3.32
Fourth Quarter	4.45	2.50
<b>2001</b>		
First Quarter	14.00	11.19
Second Quarter	14.40	10.10
Third Quarter	10.89	6.45
Fourth Quarter	8.20	5.95



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The table below indicates the yearly high and low market prices on a yearly basis for the five most recent financial years:

	<b>High</b>	<b>Low</b>
	(U.S.\$)	
2002	9.00	2.50
2001	14 2/5	5 19/20
2000	15 1/2	9 1/8
1999	13 1/2	7 1/8
1998	37	10

**Trading on Euronext Paris**

Official trading of listed securities on Euronext Paris is transacted through stockbrokers and other financial intermediaries, and takes place continuously on each business day from 10:00 a.m. through 5:00 p.m., with a pre-opening session from 8:30 a.m. through 10:00 a.m. during which transactions are recorded but not executed. Any trade effected after the close of a stock exchange session is recorded, on the next Paris Bourse trading day, at the closing price for the relevant security at the end of the previous day's session. Euronext Paris publishes a daily Official Price List that includes price information concerning listed securities. Euronext Paris has introduced continuous trading during trading hours by computer for most listed securities. Shares listed on Euronext Paris are placed in one of three categories depending on the volume of transactions. Our outstanding ordinary shares are listed on the Premier Marché in the category known as Continu, which includes the most actively traded shares (with a minimum annual trading volume of 2,500 trades).

**Plan of Distribution**

Not applicable.

**Markets**

Our ordinary shares are listed on Euronext Paris. American Depositary Receipts representing our ordinary shares are listed on the New York Stock Exchange. Our 10 5/8% Senior Notes due 2007 are listed on the Luxembourg Stock Exchange.

**Selling Shareholders**

Not applicable.

**Dilution**

Not applicable.

**Expenses of the Issue**

Not applicable.

**Item 10: ADDITIONAL INFORMATION****Share Capital**

Not applicable.

**Memorandum and Articles of Association**

## Edgar Filing: GENERAL GEOPHYSICS CO - Form 20-F

Our company is a *société anonyme*, a form of limited liability company, established under the laws of France, and we are registered with the Trade Register of Evry, France under the number 969 202 241. The following paragraphs set forth information concerning our share capital and provide related descriptions of

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certain provisions of our by-laws (*statuts*), and applicable French law. This description is only a summary and does not describe everything that our *statuts* contain.

### ***Object and Purposes***

Under Article 2 of our *statuts*, our object is to develop and operate, in any form and under any conditions whatsoever, any and all businesses relating to the geophysical surveying of soil and subsoil in any and all countries, on behalf of third parties or ourselves. Moreover, we may participate directly or indirectly in any business, firm or company whose object would be likely to promote our object. Finally, and generally, we may engage in any business, industrial, mining, financial, personal or real property operations relating directly or indirectly to the above object without limitation or reserve.

### ***Directors***

For a further description of the Board of Directors' powers under French law and our *statuts*, see Item 6: Directors, Senior Management and Employees.

#### ***Directors' Power to Vote on Agreements in Which They Are Materially Interested***

In accordance with our *statuts*, agreements between us and a director are subject to prior authorization of the Board of Directors, unless the agreements are concluded on an arm's-length basis in the normal course of business. The Chairman of the Board of Directors must, on receipt of such authorization, then inform the statutory auditors (who prepare a report on the agreement) and submit the agreement to approval by a General Shareholders' Meeting. The shares of the director in question are not counted toward the quorum or in the vote. If the General Shareholders' Meeting refuses to approve the agreement, third parties may still rely on it, but the director may be held liable to us for any loss we incur under the agreement.

#### ***Directors' Power to Vote Compensation to Themselves***

Under our *statuts*, the Shareholders' Meeting may provide for the payment to the directors of an annual fixed sum, the amount of which remains unchanged until further decision. The Board of Directors allocates this amount between its members in the manner it deems appropriate. Also, under our *statuts*, the Board of Directors elects a chairman, and the Board decides the amount of his compensation.

Under our *statuts*, the Board of Directors may appoint one chief executive officer in charge of the day to day management of the company. The Board of Directors determines the chief executive officer's compensation.

#### ***Borrowing Powers Exercisable by the Directors***

Under our *statuts*, directors other than legal entities are forbidden to take out loans from CGG in any form whatsoever or to have CGG grant them an overdraft in current account or otherwise. It is also forbidden to have CGG stand as surety for them or back their commitments in respect of third parties. This prohibition also applies to chief operating officers and to permanent representatives of legal-entity directors. It also applies to the spouses, lineal forebearers or descendants of the persons referred to in this paragraph and also to any trustee.

Under article L.225-43 of the French Commercial Code, directors and executive officers may not borrow money or obtain a guarantee from us. Any such loan or guarantee would be void and may not be relied upon by third parties.

#### ***Retirement of Directors Under an Age Limit Requirement***

Under our *statuts*, the Chairman of the Board's term of office ends, at the latest, after the annual Ordinary Shareholders' Meeting following the date on which he reaches the age of 65. However, the Board of Directors may further extend the office of the Chairman, one or more times for a total period not to exceed three years. In accordance with article L.225-19 of the French Commercial Code, no more than one-third of the members of the Board of Directors may be more than 70 years old, unless the *statuts* of the company provide otherwise. Our *statuts* do not contain any provisions contrary to this limitation.

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*Number of Shares Required for a Director's Qualification*

Under our *statuts*, throughout his term of office, each director must own at least one share.

*Share Capital*

We have only one class of capital stock which consists of 11,680,718 fully paid shares having a nominal value of €2 per share. Our stated capital thus amounts to €23,361,436. Pursuant to our *statuts*, fully paid shares may be held either in registered or in bearer form at the option of the shareholder. The *statuts* also allow us to avail ourselves of a procedure known as *titres au porteur identifiables* by which we may request SICOVAM to disclose the name, nationality, address and the number of shares held by the holders of any of our securities which have, or may in the future have, voting rights. See Form, Holding and Transfer of Shares.

***Dividend and Liquidation Rights***

We may only distribute dividends out of our distributable profits, plus any amounts held in our reserve which the shareholders decide to make available for distribution, other than those reserves which are specifically required by law. Distributable profits consist of our unconsolidated net profit in each fiscal year, as increased or reduced by any profit or loss carried forward from prior years, less any contributions to the reserve accounts pursuant to law.

Under French law, before dividends may be paid with respect to any fiscal year, we must contribute a minimum of 5% of our annual unconsolidated net income to a legal reserve fund, until it reaches an amount equal to 10% of our stated capital. The legal reserve is distributable only upon our liquidation.

Our *statuts* provide that the general shareholders' meeting, either on a recommendation from the board of directors or on its own initiative, may allocate all or part of our distributable profits, if any, to one or more special or general reserves or to keep such profits as retained earnings to be carried forward to the next fiscal year. Any remaining distributable profits are distributed to shareholders as dividends in proportion to their holdings. However, except in the case of a decrease in share capital which aims to offset losses, no distribution may be made to shareholders when the shareholders' equity is or would become, as a result of the distribution, less than the amount of the share capital increased by amounts held in reserve accounts pursuant to law. The methods of payment of dividends are determined by the annual general meeting of shareholders or by the board of directors in the absence of a decision by the shareholders. According to our *statuts*, the general meeting has the power to give each shareholder the option of receiving all or part of its dividend payment in either cash or shares.

If we have earned distributable profits since the end of the preceding fiscal year, as shown on an interim income statement certified by our auditors, the board of directors has the authority, without the approval of shareholders, to distribute interim dividends to the extent of such distributable profits for the period covered by the interim income statement. If a company which has shares listed on a regulated securities exchange in France decides to distribute interim dividends, French law requires that such interim dividends amount to at least €0.76 per share.

Under French law, dividends are normally distributed to shareholders in proportion to their respective holdings. Dividends are payable to all holders of shares, except for treasury stock, issued and outstanding on the date of the shareholders' meeting approving the distribution of dividends or, in the case of interim dividends, on the date of the board of directors' meeting approving the distribution of interim dividends. We must make annual dividend payments within nine months of the end of our fiscal year, unless otherwise authorized by a court order. Any sale of shares executed on the monthly settlement market during the month of a dividend payment is deemed to occur after payment of the dividend and the purchaser's account will be credited with an amount equal to the dividend paid and the seller's account will be debited in the same amount. Dividends not claimed within five years of the date of payment revert to the French State.

In the event that we are liquidated, our assets remaining after payment of all debts and liabilities, liquidation expenses and all remaining obligations will be distributed first to repay in full the nominal value of the shares and the surplus, if any, will be distributed to the shareholders in proportion to the nominal value of their shareholdings.



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***Changes in Share Capital***

We may increase our share capital either:

by issuing additional shares or securities giving access, immediately or in the future, to a portion of our share capital, or

by increasing the nominal value of our existing shares.

We may issue additional shares:

for cash,

for assets contributed in kind,

upon the conversion of debt securities or other debt instruments previously issued,

by the capitalization of reserves, retained earnings or issuance premiums, or

for cash credits payable by the Company.

We may increase our share capital only with the approval of the shareholders at an extraordinary general meeting, following a recommendation of the board of directors. When a capital increase takes place through capitalization of reserves, retained earnings or issuance premiums, however, the general meeting at which the decision to increase the capital is taken follows the quorum and majority requirements of ordinary general meetings. Increases effected by an increase in the nominal value of shares require unanimous approval of the shareholders, unless effected by capitalization of reserves, retained earnings or issuance premiums. See Attendance and Voting at Shareholders Meetings.

The shareholders may delegate the right to carry out any increase in share capital to the board of directors, provided that the increase has been previously authorized by the shareholders. The board of directors may further delegate this right to our Chairman.

At a meeting to be held on May 15, 2003 our shareholders will be requested to authorize the board of directors to increase our share capital, through one or more issuances of securities, up to an aggregate nominal amount of 23,000,000. This authorization is effective for a period of 26 months. Our shareholders will have preferential rights to subscribe for such securities. At the same meeting, our shareholders decided to withdraw the shareholders' preferential subscription rights in respect of a second authorization to increase our share capital, through one or more issuances of securities, up to an aggregate nominal amount of 23,000,000. This second authorization is also effective for a period of 26 months. Capital increases made pursuant to both authorizations may not exceed an aggregate nominal amount of 23,000,000.

An extraordinary general meeting of shareholders also has the power to authorize and implement a reduction in share capital which may be effected either:

by decreasing the nominal value of our outstanding shares, or

by reducing the number of our outstanding shares.

The number of outstanding shares may be reduced either by an exchange of shares or by the repurchase and cancellation of shares.

According to French company law, any decrease in our share capital requires approval by the shareholders entitled to vote at an extraordinary general meeting. In the case of a capital reduction, other than a reduction to absorb losses and a reduction pursuant to a program of acquisition of shares, all holders of shares must be offered the possibility to participate in such a reduction. See Acquisition of our own Shares. All holders of shares in a given class of shares must be treated equally unless each affected shareholder agrees otherwise. Our creditors may oppose a capital reduction during the 20-day period following the registration with the Registry of Commerce of the minutes of the shareholders meeting approving the capital reduction. Upon a creditor's request, the *Tribunal de Commerce* may order us to reimburse our creditors or guarantee our debt. All holders of shares in a given class of shares must be treated equally unless each affected shareholder agrees otherwise.

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### ***Preferential Rights to Subscribe***

According to French law, our current shareholders have preferential rights on a pro rata basis to subscribe (*droit préférentiel de souscription*) for any issue of additional shares to be subscribed in cash or by set-off of cash debts and to subscribe to any issue of other securities which may either directly or indirectly result in, or carry rights to subscribe for, additional shares issued by us. An extraordinary shareholders meeting may decide to withdraw the shareholders preferential right to subscribe, either in respect of any specific issue of securities, or more generally, with respect to an authorization by the extraordinary general meeting, to issue shares or other equity securities, for a duration not to exceed twenty-six months. Shareholders may also individually waive their preferential right to subscribe in respect of any offering. French law requires that the board of directors and our independent auditors present reports that specifically address any proposal to waive preferential subscription rights. In the event of a waiver, the issue of securities must be completed within the period prescribed by law. Preferential rights to subscribe, if not previously waived, are tradable during the subscription period relating to a particular offering of shares and may be quoted on Euronext Paris. In the event that the preferential rights of shareholders are withdrawn, the shareholders meeting has the power to grant, or to authorize the board of directors to grant, existing shareholders a non-transferable priority right (*délai de priorité*) to subscribe for new shares issued during a limited period.

### ***Attendance and Voting at Shareholders Meetings***

#### ***General***

In accordance with French law, general shareholders meetings may be ordinary or extraordinary. Ordinary general meetings of shareholders are required for matters such as:

- the election, replacement and removal of directors,
- the appointment of statutory auditors,
- the approval of annual accounts,
- the declaration of dividends or the authorization for dividends to be paid in shares, and
- the issuance of debt securities.

Our board of directors must convene an ordinary general shareholders meeting each year to approve the annual accounts.

Extraordinary general meetings of shareholders are required for approval of all matters and decisions involving:

- changes in our *statuts* (including changing our corporate purposes),
- increasing or reducing our share capital,
- extending or abridging the duration of the company,
- mergers and spin-offs,
- creation of a new class of shares,
- authorization of the issuance of investment certificates (*certificats d investissement*) or notes convertible or exchangeable into shares,
- transformation of our company into another legal form, and
- voluntary liquidation of our company before the end of its statutory term.

#### ***Annual Ordinary Meetings***

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Our board of directors must convene the annual ordinary general meeting of shareholders for approval of the annual accounts. This meeting must be held within six months of the end of our fiscal year, unless such time is

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extended by an order of the President of the *Tribunal de Commerce* pursuant to a request. Other ordinary or extraordinary meetings may be called at any time during the year. Meetings of shareholders may be convened by the board of directors or, in the circumstances prescribed by law, if the board of directors fails to call such a meeting, by our statutory auditors or by an administrator appointed by the President of the *Tribunal de Commerce*. Any of the following may request the President of the *Tribunal de Commerce* to appoint an administrator:

one or several shareholders holding in the aggregate at least 5% of our share capital,

any interested parties in cases of emergency, or

the workers' committee in case of emergency, or

an association of holders of shares who have held the shares in registered form held for at least two years and holding, in the aggregate, a certain percentage of our voting rights (1% to 5% determined on the basis of a statutory formula relating to capitalization).

*Notice of Shareholders' Meetings*

The notice calling a general meeting must state the matters to be discussed at the meeting and, with the sole exception of removal and replacement of directors (which may be discussed at any meeting), any matter which does not appear on the agenda may not be discussed at the meeting.

French law requires that a preliminary notice (*avis de réunion*) of a general meeting of a listed company be published in the *Bulletin des Annonces Légales Obligatoires* («BALO») at least 30 days before the date set for the meeting. The preliminary notice must first be sent to the *Commission des opérations de bourse* (the «COB») with an indication of the date of its publication in the BALO. Within 10 days of publication, additional resolutions to be submitted for approval by the shareholders at the meeting may be proposed to the board of directors by:

one or more shareholders holding, in the aggregate, a certain percentage of our share capital (0.5% to 5% determined on the basis of a statutory formula relating to capitalization), or

a duly authorized association of shareholders who have held their shares in registered form for at least two years and holding, in the aggregate, a certain percentage of our voting rights (1% to 5% determined on the basis of a statutory formula relating to capitalization)

The board of directors must submit these resolutions to a vote of the shareholders.

At least 15 days before the date set for any general meeting on first call, and at least six days before any second call, we must send a notice (*avis de convocation*) by mail to all holders of registered shares who have held such shares for more than one month prior to the date of the notice. Notice of the meeting must also be given by publication in a journal authorized to publish legal announcements in the local administrative department (*département*) in which we are registered as well as in the BALO, with prior notice having been given to the COB. Such a notice must include a description of the type, agenda, place, date and time of the meeting.

*Attendance and Voting at Shareholders' Meetings*

Attendance and exercise of voting rights at both ordinary and extraordinary general meetings of shareholders are subject to certain conditions. A shareholder does not need to have a minimum number of shares in order to be able to attend or be represented at an extraordinary general meeting. Any statutory provision to the contrary is null and void. In order to participate in any general meeting, a holder of registered shares must have its shares registered in his name or in the name of the accredited financial intermediary referred to in article L. 228-1 of the French Commercial Code in a shareholder account maintained by us or on our behalf at least five days prior to the meeting. Similarly, a holder of bearer shares must obtain from the accredited financial intermediary (*intermédiaire financier habilité*) with whom such holder has deposited its shares a certificate indicating the number of bearer shares the holder owns and stating that these shares are blocked in the account held by the intermediary in the holder's name until the date of the meeting (*certificat d'immobilisation*). This certificate must be deposited at the place specified in the notice of the meeting at least five days before the meeting convenes.

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*Proxies and Votes by Mail*

Subject to the foregoing, all shareholders have the right to participate in general meetings, either in person, by a proxy or by mail and, subject only to any applicable laws, may vote according to the number of shares they hold. Proxies may be granted by a shareholder to:

his or her spouse,

another shareholder, or

in the case of a corporation, to a legal representative.

Alternatively, the shareholder may send us a proxy in blank without nominating any representative.

In the last case, the chairman of the shareholders' meeting will vote the shares with respect to which such blank proxy has been given in favor of all resolutions proposed by the board of directors and against all others. We will send proxy forms to any shareholder on request. In order to be counted, we must receive proxy forms at our registered office or at such other address indicated in the notice convening the meeting prior to the date of the relevant general meeting. With respect to voting by mail, we must send our shareholders a form of such vote and we must receive the form at least three days prior to the date of the relevant general meeting. In addition, any shareholder acting as a proxy for any other shareholder will have no restrictions other than certain limits imposed by a company's *statuts* on the maximum number of votes which a single person may exercise whether in his personal capacity or as representative of another. Our *statuts* do not include any such limitation and, accordingly, each person properly present at a general meeting may exercise as many votes as such person's shares represent.

*Quorum*

Under French law, a quorum requires the presence in person or voting by mail or by proxy of shareholders representing, in the aggregate, not less than:

25% of the shares entitled to vote (in the case of an ordinary general meeting or an extraordinary general meeting deciding upon any capital increase by capitalization of reserves, retained earnings or share premium), or

33.33% of the shares entitled to vote (in the case of any other extraordinary general meeting).

If a quorum is not present at any meeting, the meeting is adjourned. There is no quorum requirement when an ordinary general meeting is reconvened but only questions which were on the agenda of the adjourned meeting may be discussed and voted upon. When an extraordinary general meeting is reconvened, the presence in person or by proxy of shareholders having not less than 25% of the shares entitled to vote is required for a quorum except when an increase in our share capital is proposed through incorporation of reserves, retained earnings or share premium, in which case the applicable quorum requirements are those applicable to ordinary general meetings. If such a quorum is not present, the reconvened meeting may be adjourned for a maximum of two months, but no deliberations may take place without a quorum.

Any shareholder may also, if the Board of Directors or its Chairman allows at the time of the convocation to a general meeting, attend the meeting via video-conference or by means of electronic telecommunication or tele-transmission subject to, and in accordance with, the conditions laid down by the legislation or the regulations then in force. This shareholder is then considered to be present at the meeting when calculating the quorum and the majority.

*Majority*

At an ordinary general meeting or an extraordinary general meeting deciding upon any capital increase by capitalization of reserves, retained earnings or share premium, a majority of votes cast by the shareholders present or represented at such meeting is required to pass a resolution. At any other extraordinary general meeting, a two-thirds majority of votes cast is required to pass a resolution. A unanimous vote, however, is required to increase the liabilities of shareholders. Abstention from voting by those present or represented by proxy or voting by mail is viewed as a vote against the resolutions submitted to a vote.

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Our *statuts* provide that, as from May 22, 1997, each share that is fully paid and has been held in registered form by the same shareholder for a period of at least two consecutive years will entitle such shareholder to two votes. In the event of capital increases effected by a free attribution of shares, as a result of the incorporation of reserves, retained earnings or issuance premiums, the shares attributed by reason of and proportionately to the ownership of shares holding double voting rights are immediately granted double voting rights as if they themselves had fulfilled the requirements therefor. Under French company law, shares held by entities controlled directly or indirectly by us are not entitled to voting rights and do not count for quorum or majority purposes.

***Acquisition of our own Shares***

Under French law, our company may not issue shares to itself. However, we may, either directly or through a financial intermediary acting on our behalf, purchase our shares for one of three purposes:

- (1) to reduce our share capital, canceling the shares we purchase, with our shareholders' approval at an extraordinary general meeting,
- (2) to provide shares to our employees under a profit sharing plan or stock option plan, or
- (3) to acquire up to 10% of our share capital. To acquire shares for this purpose, we must first file a *note d'information* that has received the approval (*visa*) of the COB and obtain our shareholders' approval at an ordinary general meeting.

In the case of shares we repurchase under (3) above, we have one of three options. We may:

retain the shares as treasury shares, pending one of the following two other options,

sell or transfer them, including to our employees under a profit-sharing plan or stock option plan, or

cancel the shares, with our shareholders' approval at an extraordinary general meeting.

We may not repurchase under either (2) or (3) above an amount of shares that would result in our company holding, directly or through a person acting on our behalf, more than 10% of our outstanding share capital, without canceling the said 10% first. In addition, we may not cancel more than 10% of our outstanding share capital over any 24-month period.

We must hold any shares we repurchase in registered form. These shares also must be fully paid up. Shares repurchased by us are deemed outstanding under French law but are not entitled to dividends or voting rights. The shareholders, at an extraordinary general meeting, may decide not to take such shares into account in determining the preferential rights to subscribe attached to the other shares (if such a decision is not taken, these rights must be either sold on the market before the end of the subscription period or distributed to the other shareholders on a pro rata basis.)

A direct subsidiary is generally prohibited by French law from holding shares in its parent and, in the event it becomes a holder of shares, such subsidiary must transfer such shares within one year following the date on which it becomes the holder thereof. An indirect subsidiary may only acquire shares if such subsidiary demonstrates a business purpose for holding the shares.

At the shareholders' meeting to be held on May 15, 2003, we will request our shareholders to renew the existing authorization for the 18 months following the date of such meeting to acquire up to 10 percent of our share capital through purchases of shares and to resell shares so acquired. As required by *Règlement n° 98-02* of the COB, prior to requesting shareholder authorization, we will file a *note d'information* with the COB with respect to our program of acquisition of shares.

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### ***Trading in Our Own Shares***

Under *Règlement n° 90-04* of the COB, as amended by *Règlement n° 98-03*, we may not trade in our own shares for the purpose of manipulating the market. Trades by a company in its own shares are deemed valid when the following conditions are met:

trades must be executed on our behalf by only one intermediary in each trading session, except during the issue period of any securities if the trades are made to ensure the success of the issuance,

any block trades may not be made at a price above the current market price,

each trade must be made at a price that falls between the lowest and the highest trading price of the trading session during which the trade is executed,

the trade must not influence the determination of the quoted price before the opening of trading, at the first trade of the shares, at the reopening of trading following a suspension, or, as applicable, in the last half-hour of any trading session or at the fixing of the closing price,

the trade must not be carried out in order to influence the price of a derivative instrument relating to our shares, and

the trade must not account for more than 25% of the average total daily trading volume on Euronext Paris in the shares during the five trading days immediately preceding the trade.

However, there are two periods during which we are not permitted to trade in our own securities: the 15-day period before the date on which we make our consolidated or annual accounts public, and the period beginning on the date at which we become aware of information that, if disclosed, would have a significant impact on the market price of our securities and ending on the date this information is made public.

After making the initial purchase of our own shares, we must file monthly reports with the COB and the CMF that contain specified information about subsequent transactions. The CMF makes this information publicly available.

### ***Form, Holding and Transfer of Shares***

*Form of Shares.* Our *statuts* provides that our fully paid shares may be held in either registered or bearer form at the option of the shareholder. We may avail ourselves of the procedure known as *titres au porteur identifiables*, according to which we are entitled to request Euroclear France to disclose the name, nationality, address and the number of shares held by holders of those securities of ours which have, or which may in the future acquire, voting rights.

*Holding of Shares.* In accordance with French law concerning dematerialization of securities, the ownership rights of holders of shares are represented not by share certificates but rather by book entries. According to our *statuts*, registered shares are entered into an account held by us or by a representative nominated by us, while shares in bearer form are placed in an account held by an accredited financial intermediary (*intermédiaire financier habilité*).

We maintain a share account with Euroclear France in respect of all shares in registered form, which, in France, is administered by BNP Paribas Securities Services, acting on our behalf as our agent. Shares held in registered form are inscribed in the name of each shareholder (either directly, or, at the shareholder's request, through such shareholder's accredited financial intermediary) in separate accounts maintained by BNP Paribas Securities Services on our behalf. Each shareholder account shows the name of the holder and the number of shares held and, in the case of shares inscribed through an accredited financial intermediary, shows that they are so held. BNP Paribas Securities Services, as a matter of course, issues confirmations to each registered shareholder as to holdings of shares inscribed in the shareholder's accounts, but these confirmations do not constitute documents of title.

Shares held in bearer form are held and inscribed on the shareholder's behalf in an account maintained by an accredited financial intermediary with Euroclear France separately from our share account with Euroclear France.

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Each accredited financial intermediary maintains a record of shares held through it and will issue certificates of inscription in respect thereof. Shares held in bearer form may only be transferred effected through accredited financial intermediaries and Euroclear France. As noted above, our *statuts* allow us to request from Euroclear France details concerning the identity of the holders of shares in bearer form at any time.

*Transfer of Shares.* Our *statuts* do not contain any restrictions relating to the transfer of shares. An owner of shares resident outside France may trade such shares on Euronext Paris. Should such owner (or the broker or other agent) require assistance in this connection, an accredited financial intermediary should be contacted.

Prior to any transfer of shares held in registered form on Euronext Paris, such shares must be converted into bearer form and, accordingly, must be registered in an account maintained by an accredited financial intermediary. A shareholder may initiate a transfer by giving instructions (through an agent if appropriate) to the relevant accredited financial intermediary. For dealing on Euronext Paris an *impôt sur les opérations de bourse*, or a tax assessed on the price at which the securities were traded, is payable at a rate of 0.3% on the portion of the transaction up to 153,000 and at a rate of 0.15% on the portion of the transaction over 153,000. Such stock exchange stamp duty is subject to rebate of 23 per transaction and a maximum assessment of 610 per transaction. However, non-residents of France are not required to pay this tax. In addition, a fee or commission is payable to the French broker involved in the transaction regardless of whether the transaction occurs within or outside France. No registration duty would normally be payable in France on the transfer of our shares unless a transfer instrument has been executed in France. See « Taxation on Sale or Disposal of Shares or ADSs ».

### ***Requirements for Holdings Exceeding Certain Percentages***

The French company law provides that any individual or entity, who acting alone or in concert with others, acquires more than 5%, 10%, 20%, 33%, 50%, or 66% of our outstanding shares or voting rights thereof or whose shareholding falls below any such percentage must notify us within 15 calendar days of the date such threshold was crossed of the number of shares it holds and of the voting rights attached thereto. Such individual or entity must also notify the *Conseil des Marchés Financiers* (« CMF »), the self-regulatory organization that has general regulatory authority over the French regulated exchanges and whose members include representatives of French stockbrokers, within five trading days of the date such threshold was crossed.

In order to permit holders of our shares to give the notice required by law, we must publish in the BALO, not later than 15 calendar days after our annual ordinary general meeting of shareholders, information with respect to the total number of voting rights available as of the date of such meeting. In addition, if we are aware of a change in the number of available votes by at least 5% in the period between two annual ordinary general meetings, we must publish in the BALO, within 15 calendar days of such change, the number of voting rights then available and provide the CMF with a written notice. The CMF publishes in a weekly notice (*avis*) the total number of voting rights so notified by all listed companies, mentioning the date each such number was last updated.

If any person fails to comply with the legal notification requirement, the shares or voting rights in excess of the relevant threshold will be deprived of voting rights for all shareholders meeting until the end of a two-year period following the date on which the owner thereof complies with the notification requirements. In addition, any shareholder who fails to comply with the above requirements may have all or part of its voting rights (and not only with respect to the shares in excess of the relevant threshold) suspended for up to five years by the *Tribunal de Commerce* at the request of our chairman, any shareholder or the COB, and may be subject to criminal penalties.

French law imposes additional reporting requirements on persons who acquire more than 10% or 20% of our outstanding shares or voting rights. These persons must file a report with us, the COB and the CMF within 15 days of the date they cross the threshold. In the report, the acquiror must specify its intentions for the following 12-month period, including whether or not it intends to continue its purchases, to acquire control of our company or to seek nomination to our board of directors. The CMF makes the notice public. The acquiror must also publish a press release stating its intentions in a financial newspaper of national circulation in France. The acquiror may only amend its stated intentions in case of significant changes in its own situation or shareholders, or in our situation. Upon any change of intention, it must file a new report. Failure to comply with the notification



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requirements or to abide by the stated intentions may result in the acquiror being deprived of all or part of its voting rights, for a period of up to five years, at our request or that of the COB or one of our shareholders.

Our *statuts* provide that any shareholder who directly or indirectly acquires ownership or control of shares representing 2% or any multiple thereof of our share capital or voting rights, or whose shareholding falls below any such limit, must inform us within 15 days of the crossing of the relevant threshold, of the number of shares then owned by such shareholder. Failure to comply with these notification requirements may result, at the request, recorded in the minutes of the general meeting, of one or several shareholders holding at least 2% of the capital, in the shares in excess of the relevant threshold being deprived of voting rights for all shareholder meetings until the end of a two-year period following the date on which the owner thereof has complied with such notification requirements.

*Compulsory Tender.* CMF regulations (*Règlement Général du Conseil des Marchés Financiers*) provide that a shareholder, or shareholders acting in concert, who come to own more than one-third of the voting rights or share capital of a French company listed on a regulated securities exchange in France must immediately notify the CMF, and submit a compulsory tender for all the shares of capital and all securities giving access to the share capital or voting rights of such company. The tender must be submitted on terms acceptable to the CMF. The acquisition of control of a private company, the principal asset of which is a one-third or more interest in a company listed on a regulated market in France, is treated as a direct acquisition of such interest.

In addition, the same obligation applies to any shareholder or shareholders acting in concert who, owning between one-third and 50% of the voting rights or share capital of a French company listed on a regulated market in France, increase their interest by more than 2% of the existing total number of shares or voting rights during a period of twelve months.

The CMF is vested with the power to grant relief from the obligation to tender for all of the shares of the target company and may consider certain exemptions when petitioned for such relief by the acquiring shareholders. These exemptions primarily concern previous control of the target company or a commitment to divest within a given period.

## **Material Contracts**

The following contracts (not being contracts entered into in the ordinary course of business) have been entered into by us or our subsidiaries within the two years immediately preceding the date of this document and are, or may be, material:

### ***Purchase Agreement dated February 5, 2002 among us, RBC Dominion Securities Corporation and Salomon Smith Barney Inc.***

In accordance with this agreement, we sold U.S.\$55,000,000 of our 10 5/8% Senior Notes due 2007 to the initial purchasers for resale pursuant to Rule 144A and Regulation S under the Securities Act.

## **Exchange Controls**

### ***Ownership of ADSs or shares by Non-French Persons***

Under French law, there is no limitation on the right of non-resident or foreign shareholders to own or to vote securities of a French company.

According to the law dated February 14, 1996, administrative authorization is no longer required prior to acquiring a controlling interest in a French company. However a notice (*déclaration administrative*) must be filed with the French Ministry of the Economy for the acquisition of an interest in us by any person not residing in France or any group of non-French residents acting in concert or by any foreign controlled resident if such acquisition would result in (i) the acquisition of a controlling interest in us or (ii) the increase of a controlling interest in us unless such person not residing in France or group of non-French residents already controls more than two-thirds of our share capital or voting rights prior to such increase. Under existing administrative rulings, ownership of 20% or more of a French listed company's share capital or voting rights is regarded as a controlling

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interest, but a lower percentage might be held to be a controlling interest in certain circumstances (depending upon such factors as the acquiring party's intentions, the ability of the acquiring party to elect directors or financial reliance by the company concerned on the acquiring party).

### ***Exchange Controls***

Under current French exchange control regulations, there are no limitations on the amount of payments that may be remitted by us to non-residents. Laws and regulations concerning foreign exchange control do require, however, that all payments or transfers of funds (including payments of dividends to foreign shareholders) made by a French resident to a non-resident be handled by an accredited intermediary. In France, all registered banks and substantially all credit establishments are accredited intermediaries.

## **Taxation**

### ***French Taxation***

The following is a general summary of the principal French tax consequences of owning and disposing of ADSs relevant to U.S. Holders (as defined below) which do not hold the ADSs or underlying shares in connection with a trade or business conducted in France. The statements relating to French tax laws set out below are based on the laws in force as at the date hereof, and are subject to any changes in applicable French tax laws or in any applicable double taxation conventions or treaties with France occurring after such date.

This discussion is intended only as a descriptive summary and does not purport to be a complete analysis or list of all potential tax effects of the purchase or ownership of ADSs.

### ***Taxation on Sale or Disposal of ADSs***

Subject to the provisions of any relevant double tax treaty, persons who are not French residents for the purpose of French taxation (as well as, under certain conditions, foreign states, international organizations and certain foreign public bodies) and who have held not more than 25%, directly or indirectly, of the dividend rights (*bénéfices sociaux*) of our company at any time during the preceding five years, are not generally subject to any French income tax or capital gains tax on any sale or disposal of ADSs.

If a transfer of listed shares is evidenced by a written agreement, such share transfer agreement is, in principle, subject to registration formalities and therefore to a 1% registration duty assessed on the higher of the purchase price or the market value of the shares (subject to a maximum assessment of 3,049 per transfer), provided that, under certain circumstances, no duty is due if such written share transfer agreement is executed outside France.

### ***Taxation of Dividends***

Under French law, dividends are paid out of after-tax income. French residents are entitled to a tax credit, known as the *avoir fiscal*, equal to one-half of the dividend paid where the beneficiary shareholder is an individual. Where the beneficiary shareholder is not an individual, the *avoir fiscal* is generally equal to 10% of the dividend paid for the *avoir fiscal* used or refunded in 2003. However, except in limited circumstances, if a distribution is subject to a tax known as the *précompte*, shareholders entitled to the *avoir fiscal* at the rate of 10% are generally entitled to an additional amount of *avoir fiscal* equal to 80%, respectively, of any *précompte* actually paid in cash by our company upon distribution of dividends paid out of certain profits (see below paragraph relating to the *précompte*). Dividends paid to non-residents are normally subject to a 25% withholding tax and, under French law, non-residents are not eligible for the benefit of the *avoir fiscal*. As discussed below, this amount is reduced to 15% or, as the case may be, 5% under the income and capital tax treaty between the United States and France currently in force (the Treaty).

Amounts distributed as dividends by French companies out of profits which have not been taxed at the ordinary corporate income tax rate or which have been earned and taxed more than five years before the distribution are subject to a tax known as the *précompte*, by such companies. The *précompte* is paid by the distributing company to the French tax authorities and is generally equal to one-half of the net dividend

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distributed, before withholding tax. When a tax treaty in force does not provide for a refund of the *avoir fiscal* or when the non-resident investor is not entitled to such refund but is otherwise entitled to the benefits of a tax treaty, such investor may obtain from the French tax authorities a refund of such *précompte* actually paid in cash by our company, if any (net of applicable withholding tax).

***U.S. Taxation***

The following is a summary of the material U.S. federal income tax and French tax consequences of the acquisition, ownership and disposition of ADSs by a U.S. Holder (as defined below). This summary deals only with purchasers of ADSs that are U.S. Holders that will hold the ADSs as capital assets. The discussion does not cover all aspects of U.S. federal income taxation that may be relevant to, or the actual tax effect that any of the matters described herein will have on, the acquisition, ownership or disposition of ADSs by particular investors, and does not address state, local, foreign or other tax laws. In particular, this summary does not address tax considerations applicable to investors that own (directly or indirectly) 10% or more of our voting stock, nor does this summary discuss all of the tax considerations that may be relevant to certain types of investors subject to special treatment under the U.S. federal income tax laws (such as banks, insurance companies, investors liable for the alternative minimum tax, individual retirement accounts and other tax-deferred accounts, tax-exempt organizations, dealers in securities or currencies, investors that will hold ADSs as part of straddles, hedging transactions or conversion transactions for U.S. federal income tax purposes or investors whose functional currency is not the U.S. dollar).

As used herein, the term **U.S. Holder** means a beneficial owner of ADSs that is (i) a citizen or resident of the United States for U.S. federal income tax purposes, (ii) a corporation, or other entity treated as a corporation, created or organized under the laws of the United States or any State thereof, (iii) an estate the income of which is subject to U.S. federal income tax without regard to its source or (iv) a trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust.

The summary assumes that we are not a passive foreign investment company ( **PFIC** ) for U.S. federal income tax purposes, which we believe to be the case. Our possible status as a PFIC must be determined annually and therefore may be subject to change. If we were to be a PFIC in any year, materially adverse consequences could result for U.S. Holders.

The summary assumes that each obligation in the deposit agreement between The Bank of New York and us (the **Deposit Agreement** ) and any related agreement will be performed in accordance with its terms and is based on the tax laws of the United States, including the Internal Revenue Code of 1986, as amended (the **Code** ), its legislative history, existing and proposed regulations thereunder, published rulings and court decisions, as well as on the Treaty, all as currently in effect and all subject to change at any time, possibly with retroactive effect.

For United States federal income tax purposes, a U.S. Holder of ADSs will be treated as the owner of the corresponding number of our shares held by The Bank of New York as depositary (the **Depositary** ) and references herein to shares refer also to ADSs representing shares.

***Dividends***

*General.* Distributions, inclusive of the *avoir fiscal* or *précompte* (discussed below under **Effect of French Withholding Taxes** *Avoir Fiscal* ), if applicable, paid on our shares out of current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), before reduction for any French withholding tax paid by us with respect thereto, will generally be taxable to a U.S. Holder as foreign source dividend income in the year in which the distribution is received (which, in the case of a U.S. Holder of ADSs, will be the year of receipt by the Depositary), and will not be eligible for the dividends received deduction otherwise allowed to corporations. Distributions in excess of current and accumulated earnings and profits will be treated as a non-taxable return of capital to the extent of the U.S. Holder's basis in the ADSs and thereafter as capital gain.

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*Effect of French Withholding Taxes – Avoir Fiscal*As discussed above under French Taxation – Taxation of Dividends in France dividends are paid out of after-tax income. Under French domestic law, dividends paid to non-residents are normally subject to a 25% French withholding tax and are not eligible for the benefit of the *avoir fiscal*.

Under the Treaty, the rate of French withholding tax on dividends paid to a US Holder that is not a company holding, directly or indirectly, at least 10% of our share capital and whose ownership of ADSs is not effectively connected with a permanent establishment or a fixed base in France is reduced to a 15% withholding tax. This rate is further reduced to 5% if the US Holder is a company holding, directly or indirectly, at least 10% of our share capital and whose ownership of ADSs is not effectively connected with a permanent establishment or a fixed base in France. An Eligible U.S. Holder (as defined below) is also entitled to a payment equal to the *avoir fiscal*, less the 15% withholding tax. As noted below, this payment will not be made to an Eligible U.S. Holder until after the close of the calendar year in which the dividend was paid and only upon receipt by the French tax authorities of a claim made by the Eligible U.S. Holder for the payment in accordance with the procedures set forth below.

As used herein, the term an Eligible U.S. Holder is a U.S. Holder whose ownership of ADSs is not effectively connected with a permanent establishment or fixed base in France who is entitled to the benefits of the Treaty under the Limitation on Benefits article of the Treaty, and who is (i) an individual or other non-corporate holder that is a resident of the United States as defined pursuant to the provisions of the Treaty, (ii) a United States corporation that does not own, directly or indirectly, 10% or more of our capital, other than a regulated investment company, (iii) a United States corporation that does not own, directly or indirectly, 10% or more of our capital, which is a regulated investment company, but only if less than 20% of its shares are beneficially owned by persons who are neither citizens nor residents of the United States or (iv) a partnership or trust that is treated as a resident of the United States as defined pursuant to the provisions of the Treaty, but only to the extent that its partners, beneficiaries or grantors would qualify under clause (i) or (ii) above.

In general, under the Treaty, an Eligible U.S. Holder may receive a payment of the *avoir fiscal* only if the holder (or its partners, beneficiaries or grantors, if the holder is a partnership or trust) attests that it is subject to United States federal income taxes on the payment of the *avoir fiscal* and the related dividend. However, certain tax-exempt U.S. Pension Funds, as defined below, and certain other tax-exempt entities (including certain governmental institutions, non-profit-making organizations and individuals with respect to dividends beneficially owned by such individuals and derived from an investment retirement account) ( Other Tax-Exempt Entities ) that own, directly or indirectly, less than 10% of our capital, and that satisfy certain filing formalities (i) are entitled to a payment, subject to French withholding tax, equal to 30/85 of the gross *avoir fiscal* (the partial *avoir fiscal* ) and (ii) are eligible for the reduced withholding tax rate of 15% on dividends. A U.S. Pension Fund includes, inter alia, the exempt pension funds subject to the provisions of Section 401(a) (qualified retirement plans), Section 403(b) (tax deferred annuity contracts), Section 408 (individual retirement accounts) or Section 457 (deferred compensation plans) of the Code, established and managed in order to pay retirement benefits.

Dividends paid to an Eligible U.S. Holder will be subject to the reduced withholding tax rate of 15% at the time the dividend is paid if (i) such holder duly completes and provides the French tax authorities with French Treasury Form RF 1 A EU-NO. 5052 (the Form ) before the date of payment of the relevant dividend together with, if such Eligible U.S. Holder is not an individual, an affidavit attesting that it is the beneficial owner of all the rights attached to the full ownership of ADSs, including but not limited to dividend rights, or (ii) if completion of the Form is not possible prior to the payment of dividends, the holder duly completes and provides the French tax authorities with a simplified certificate (the Certificate ) stating that (a) the holder is a U.S. resident as defined pursuant to the provisions of the Treaty, (b) the holder's ownership of the ADSs is not effectively connected with a permanent establishment or fixed base in France, (c) the holder owns all the rights attached to the full ownership of the ADSs, including but not limited to dividend rights, (d) the holder meets all the requirements of the Treaty for obtaining the benefit of the reduced rate of withholding tax and the right to payment of the French *avoir fiscal*, and (e) the holder claims the reduced rate of withholding tax and payment of the *avoir fiscal* under the Treaty. U.S. Holders of ADSs may provide the Form or the Certificate to the Depositary, provided that the Depositary be given sufficient time to file such Form or Certificate with the French tax authorities before the date of payment.

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Dividends paid to a U.S. Holder that is not entitled to the *avoir fiscal* (i.e., not an Eligible U.S. Holder) or to an Eligible U.S. Holder whose completed Form or Certificate has not been filed before the dividend payment date will be subject to French withholding tax at the rate of 25%. Such holder may claim a refund of the excess withholding tax and an Eligible U.S. Holder may claim the *avoir fiscal* by completing and providing the French tax authorities with the Form before December 31 of the year following the end of the calendar year in which the dividend is paid. U.S. Pension Funds and Other Tax-Exempt Entities are subject to the same general filing requirements as Eligible U.S. Holders except that they may have to supply additional documentation evidencing their entitlement to these benefits.

The Form or the Certificate, together with their respective instructions, will be provided by the Depositary to all U.S. Holders of ADSs registered by the Depositary. They are also available from the United States Internal Revenue Service (the IRS). The Depositary will arrange for the filing with the French tax authorities of all Forms or Certificates completed by U.S. Holders that are returned to the Depositary in sufficient time. Eligible U.S. Holders, U.S. Pension Funds and Other Tax-Exempt Entities must file (or have the Depositary file) the form and, when applicable, the affidavit in order to receive payment of the *avoir fiscal* or partial *avoir fiscal* (whichever is applicable). The *avoir fiscal* or partial *avoir fiscal* is generally expected to be paid to Eligible U.S. Holders, U.S. Pension Funds and Other Tax-Exempt Entities within 12 months of filing the Form, but not before 15 January following the end of the calendar year in which the related dividend is paid. Similarly, any French withholding tax refund is generally expected to be paid to U.S. Holders within 12 months of filing the Form, but not before 15 January following the end of the calendar year in which the related dividend is paid.

*Précompte.* Amounts distributed as dividends by French companies out of profits which have not been taxed at the ordinary corporate income tax rate or which have been earned and taxed more than five years before the distribution and which give rise to the *avoir fiscal* are subject to a *précompte*, or equalization tax, by such companies. The *précompte* is paid by the distributing company to the French tax authorities and is generally equal to one-half of the net dividend distributed.

A U.S. Holder not entitled to the (full or partial) *avoir fiscal* may generally obtain a refund from the French tax authorities of *précompte* actually paid by us with respect to the dividends distributed. A U.S. Holder entitled to partial *avoir fiscal* may generally obtain a refund of *précompte* reduced by the amount of the *avoir fiscal* payment. Pursuant to the Treaty, the amount of the *précompte* refunded to United States residents is reduced by the 15% or, as the case may be, 5% withholding tax applicable to dividends. A U.S. Holder is only entitled to a refund of *précompte* actually paid in cash by us and is not entitled to a refund of the *précompte* paid by us by off-setting French and/or foreign tax credits.

A U.S. Holder entitled to the refund of the *précompte* must apply for such refund by filing a French Treasury Form RF 1 B EU-NO. 5053 before the end of the calendar year following the year in which the dividend was paid. This form, together with its instructions, are available from the United States Internal Revenue Services and at the *Centre des impôts des non résidents* (9 rue d Uzès, 75094 Paris Cedex 2, France). The Depositary will arrange for the filing with the French tax authorities of all forms that are returned to the Depositary in sufficient time.

For United States federal income tax purposes, the amount of the *précompte* paid to a U.S. Holder will be included in gross income as dividend income in the year such payment is received. Such amounts will generally constitute foreign source passive or (in the case of certain holders) financial services income for foreign tax credit purposes.

*US Credits.* For U.S. federal income tax purposes, U.S. Holders will be treated as having received the amount of French taxes withheld by us with respect to a share or an ADS, and as then having paid over the withheld taxes to the French taxing authorities. As a result of this rule, the amount of dividend income included in gross income for U.S. federal income tax purposes by a U.S. Holder with respect to a payment of dividends may be greater than the amount of cash actually received (or receivable) by the U.S. Holder from us with respect to the payment.

Subject to certain limitations, a U.S. Holder will generally be entitled to a credit against its U.S. federal income tax liability, or a deduction in computing its U.S. federal taxable income, for French income taxes

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withheld by us that are not refundable under the Treaty. For purposes of the foreign tax credit limitation, foreign source income is classified into one of several baskets, and the credit for foreign taxes on income in any basket is limited to U.S. federal income tax allocable to that income. Dividends paid on our Shares generally will constitute foreign source income in the passive income basket or, in the case of certain holders, the financial services income basket. In certain circumstances, a U.S. Holder may be denied foreign tax credits (and instead may be allowed deductions) for foreign taxes imposed on a dividend if the U.S. Holder (i) has not held our ADSs for at least 16 days in the 30-day period beginning 15 days before the ex dividend date, during which it is not protected from risk of loss; (ii) is obligated to make payments related to the dividends; or (iii) holds the ADSs in arrangements in which the U.S. Holder's expected profit, after non-U.S. taxes, is insubstantial. Prospective purchasers should consult their tax advisers concerning the foreign tax credit implications of the payment of these French taxes.

*Foreign Currency Dividends.* Dividends paid in Euro, including the *avoir fiscal* and the *précompte*, before reduction for French withholding taxes, will be included in income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the day the dividends are received by the U.S. Holder, regardless of whether the Euro are converted into U.S. dollars at that time. If dividends received in Euro are converted into U.S. dollars on the day they are received, the U.S. Holder generally will not be required to recognize foreign currency gain or loss in respect of the dividend income.

A U.S. Holder will generally be required to recognize United States source ordinary income or loss upon the sale or disposition of Euro. Moreover, a U.S. Holder may be required to recognize foreign currency gain or loss, which will generally be United States source ordinary income or loss, upon the receipt of a refund of amounts, if any, withheld from a dividend in excess of the Treaty rate of 15%.

For purposes of determining the amount of the foreign tax credit, U.S. Holders who use the cash basis method of accounting must translate French withholding tax into U.S. dollars at the spot rate on the date the dividend is received. U.S. Holders that use the accrual basis method must translate French taxes into U.S. dollars at a rate equal to the average exchange rate for the taxable year in which the taxes accrue. All U.S. Holders, however, must translate foreign currency received as a dividend into U.S. dollars at the spot rate on the date the dividend is received for purposes of determining the amount of dividend income that is included in the U.S. Holder's gross taxable income. This difference in exchange rates may reduce the U.S. dollar value of the credits for French taxes relative to the U.S. Holders' U.S. federal income tax liability attributable to a dividend.

***Sale or other Disposition***

Upon a sale or other disposition of ADSs, a U.S. Holder generally will recognize capital gain or loss for U.S. federal income tax purposes equal to the difference, if any, between the amount realized on the sale or other disposition and the U.S. Holder's adjusted tax basis in the ADSs. This capital gain or loss will be long-term capital gain or loss if the U.S. Holder's holding period in the ADSs exceeds one year. For a non-corporate U.S. Holder, the maximum long-term capital gains rate is 20%, which is further reduced to 18% if the ADSs have been held for more than five years. Any gain or loss will generally be U.S. source, except that losses will be treated as foreign source to the extent that the U.S. Holder received dividends that were includible in the financial services income basket during the 24-month period prior to the sale. This 24-month period may be extended to cover periods in which the U.S. Holder's risk of loss is hedged.

***Passive Foreign Investment Company Status***

A foreign corporation will be a PFIC in any taxable year in which either (i) 75% or more of its gross income consists of certain specified types of passive income or (ii) the average percentage of its assets (by value) that produce or are held for the production of passive income is at least 50%. We do not expect that we will be a PFIC in 2002, but our possible status as a PFIC must be determined annually and therefore we might become a PFIC in future years.

If we were a PFIC in any taxable year during which a U.S. Holder owned ADSs and the U.S. Holder had not made a mark to market or qualified electing fund election, the U.S. Holder would generally be subject to special rules (regardless of whether we continued to be a PFIC) with respect to (i) any excess distribution (generally,

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any distributions received by the U.S. Holder on ADSs in a taxable year that are greater than 125% of the average annual distributions received by the U.S. Holder in the three preceding taxable years or, if shorter, the U.S. Holder's holding period for the ADSs and (ii) any gain realized on the sale or other disposition of ADSs. Under these rules (a) the excess distribution or gain would be allocated ratably over the U.S. Holder's holding period, (b) the amount allocated to the current taxable year and any taxable year prior to the first taxable year in which we are a PFIC would be taxed as ordinary income, and (c) the amount allocated to each of the other taxable years would be subject to tax at the highest rate of tax in effect for the applicable class of taxpayer for that year and an interest charge for the deemed deferral benefit would be imposed with respect to the resulting tax attributable to each such other taxable year. If we were a PFIC, a U.S. Holder of ADSs would generally be subject to similar rules with respect to distributions to us by, and dispositions by us of the stock of, any direct or indirect subsidiaries of ours that were also PFICs. Furthermore, a U.S. Holder who beneficially owns an interest in a PFIC is generally required to file an annual information return on IRS Form 8621 describing the distributions received from and any gain realized upon the disposition of a beneficial interest in the PFIC.

### ***French Estate and Gift Taxes***

Pursuant to The Convention Between the United States of America and the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritance and Gifts, a transfer of ADSs by gift or by reason of the death of a U.S. Holder will not be subject to French gift or inheritance tax, unless (i) the donor or the transferor is domiciled in France at the time of making the gift or at the time of his or her death, or (ii) the ADSs were used in, or held for use in, the conduct of a business through a permanent establishment or fixed base in France. In such a case, the French gift or inheritance tax may be credited against the U.S. gift or inheritance tax. This tax credit is limited to the amount of the U.S. gift or inheritance tax due on the ADSs.

### ***French Wealth Tax***

The French wealth tax ( *impôt de solidarité sur la fortune* ) does not generally apply to a U.S. Holder who is a resident of the United States as defined in the provisions of the Treaty, unless the ADSs form part of the business property of a permanent establishment or fixed base in France.

### ***Information Reporting and Backup Withholding***

Dividends on, and proceeds from the sale or other disposition of ADSs by a U.S. paying agent or other U.S. intermediary will be reported to the IRS and to the U.S. Holder as may be required under applicable regulations. Backup withholding may apply to these payments if the U.S. Holder fails to provide an accurate taxpayer identification number or certification of foreign or other exempt status or fails to report all dividends required to be shown on its U.S. federal income tax returns. Certain U.S. Holders (including, among others, corporations) are not subject to backup withholding. U.S. Holders should consult their tax advisers as to their qualification for exemption from backup withholding and the procedure for obtaining such an exemption.

### **Dividends and Paying Agents**

Not applicable.

### **Statement by Experts**

Not applicable.

### **Documents on Display**

We are subject to the reporting requirements of the Exchange Act applicable to foreign private issuers. In accordance with the Exchange Act, we electronically file reports, including annual reports on Form 20-F and interim reports on Form 6-K, and other information with the Securities and Exchange Commission. You may obtain these reports and other information by sending a written request to Compagnie Générale de Géophysique, 1, rue Léon Migaux, 91341 Massy, France, Attention: Investor Relations Officer, Telephone: (33) 1 64 47 3000.

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You can inspect and copy these reports, and other information, without charge, at the Public Reference Room of the Commission located at 450 Fifth Street, N.W., Washington, D.C. 20549. You can also obtain copies of these materials at prescribed rates from the Public Reference Room of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549 or by calling the Commission at 1-800-SEC-0330. The Commission also maintains a web site at <http://www.sec.gov> that contains reports and other information regarding registrants that file electronically with the Commission.

In addition, you can inspect material filed by us at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005, on which American Depositary Shares representing shares of our common stock are listed. As a foreign private issuer, we are not subject to the proxy rules under Section 14 or the short-swing insider profit disclosure rules under Section 16 of the Exchange Act.

All information referred to above will, for so long as the notes are listed on the Luxembourg Stock Exchange, also be available, without charge, at the specified office of the Paying Agent in Luxembourg during usual business hours on any weekday (Saturdays, Sundays and public holidays excepted) from the date of this annual report.

**Subsidiary Information**

Not applicable.

**Item 11: QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK**

Because we operate internationally, we are exposed to general risks linked to operating abroad. The table below provides information about our market sensitive financial instruments and constitutes a forward-looking statement. Our major market risk exposures are changing interest rates and currency fluctuations. Our policy is to manage interest rates through use of a combination of fixed and floating rate debt. Interest rate swaps may be used to adjust interest rate exposures when appropriate, based upon market conditions. A portion of our current assets is denominated in foreign currencies, which exposes us to market risk associated with exchange rate movements. Our policy generally is to hedge major foreign currency cash exposures through foreign exchange forward contracts. These contracts are entered into with major financial institutions, thereby minimizing the risk of credit loss. All instruments are entered into for non-trading purposes.



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The table below presents principal amounts and related weighted average interest rates by year of maturity for our debt obligations and our foreign exchange forward contracts, all of which mature in one year or less and their fair value as of December 31, 2002:

Fair value (in million)	2003	2004	2005	2006	2007	Thereafter	Total	Fair Value
<b>Cap contracts</b>								
Interest rate cap U.S. dollar								
Capped rate								
<b>Debt</b>								
U.S. dollar	35.8	0.2	0.2	0.2	214.6	1.9	252.9	290.9
Average fixed rate	5.2%	8.1%	8.1%	8.1%	10.6%	8.1%	9.8%	
U.S. dollar	7.6	1.4	1.4	0.9	0.7		12.0	12.0
Average variable rate	2.9%	2.2%	2.2%	2.2%	2.1%		2.6%	
Euro	11.0	8.2	5.3	3.5	0.7		28.8	28.0
Average fixed rate	6.1%	6.6%	6.5%	6.4%	6.0%		6.4%	
Euro	6.2	1.8	1.2	6.1			15.3	15.3
Average variable rate	7.0%	4.1%	3.9%	3.9%			5.2%	
Other currencies	0.6	0.3	0.3	0.2			1.4	1.4
Average fixed rate	7.2%	7.7%	7.4%	7.2%			7.3%	
Other currencies	3.7	0.8	0.1	0.1	0.1		4.8	4.8
Average variable rate	25.2%	18.1%	7.3%	7.3%	7.3%		22.8%	
<b>Foreign Exchange Firm commitments</b>								
Forward sales (in U.S.\$)	132.85							9.2
U.S. dollars average rate	0.9743							
Options Puts (in U.S.\$)								
U.S. dollars average rate								

**Item 12: DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES****Debt Securities**

Not applicable.

**Warrants and Rights**

Not applicable.

**Other Securities**

Not applicable.

**American Depositary Shares**

Not applicable.

**Table of Contents****PART II****Item 13: DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

Not applicable.

**Item 14: MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITYHOLDERS AND USE OF PROCEEDS**

Not applicable.

**Item 15. Controls and Procedures**

Within 90 days prior to the filing date of this report, we carried out an evaluation of the effectiveness of our disclosure controls and procedures, under the supervision of our management, including our Chief Executive Officer and our Chief Financial Officer. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that such procedures and control are effective to ensure that information required to be disclosed on form 20-F and filed with the Securities and Exchange Commission under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms.

There have been no significant changes in our internal controls or in other factors that could significantly affect internal controls subsequent to the date on which we carried out such evaluation.

**Item 16A: [RESERVED]****Item 16B: [RESERVED]****Item 16C: PRINCIPAL ACCOUNTANT FEES AND SERVICES**

We disclose the following information on our principal accountant fees and services in compliance with French law.

	As of December 31, 2002					
	BARBIER FRINAULT & AUTRES		ERNST & YOUNG AUDIT		TOTAL	
	Amount	%	Amount	%	Amount	%
	(in thousand euros)					
<b>Audit:</b>						
Audit of individual and consolidated financial statements, certification	386	75	1.011	64	1397	67
Ancillary services	118	23			118	6
<b>Total audit</b>	<b>504</b>	<b>98</b>	<b>1.011</b>	<b>64</b>	<b>1.515</b>	<b>73</b>
<b>Other services:</b>						
Legal, tax and labor services	9	2	560	36	569	27
Information systems						

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Internal audit						
Other						
<b>Total other services</b>	9	2	560	36	569	27
<b>TOTAL</b>	513	100	1,571	100	2,084	100

**Table of Contents****PART III****Item 17: FINANCIAL STATEMENTS**

Not applicable.

**Item 18: FINANCIAL STATEMENTS**

The following audited financial statements of CGG and related schedules, together with the report of Barbier Frinault et Autres, and Ernst & Young, are filed as part of this Annual Report:

	<b>Page</b>
Report of Independent Auditors	F-1
Consolidated Financial Statements:	
Consolidated Balance Sheets as at December 31, 2002, 2001 and 2000	F-2
Consolidated Statements of Operations for the years ended December 31, 2002, 2001 and 2000.	F-3
Consolidated Statements of Cash Flows for the years ended December 31, 2002, 2001 and 2000.	F-4
Consolidated Statements of Shareholders' Equity as of December 31, 2002, 2001 and 2000.	F-5
Notes to the Consolidated Financial Statements	F-6

The following financial statements of Arabian Geophysical & Surveying Company Limited (Argas) and related schedules, together with the report of Ernst & Young on the consolidated financial statements of Argas as of and for the year ended December 31, 2002, are filed as part of this Annual Report. The consolidated financial statements of Argas as of and for the year ended December 31, 2000 are unaudited.

	<b>Page</b>
Report of Independent Auditors on the Consolidated Financial Statements of Argas as at and for the year ended December 31, 2002 and 2001.	F-46
Consolidated Financial Statements:	
Consolidated Balance Sheets as at December 31, 2002, 2001 and 2000	F-47
Consolidated Statements of Income for the years ended December 31, 2002, 2001 and 2000.	F-48
Consolidated Statements of Cash Flows for the years ended December 31, 2002, 2001 and 2000.	F-49
Consolidated Statements of Changes in Shareholders' Equity as of December 31, 2002.	F-50
Notes to the Consolidated Financial Statements	F-51

**Item 19: EXHIBITS**

The following instruments and documents are included as Exhibits to this Annual Report. Exhibits incorporated by reference are so indicated.

**Exhibit No**

**Exhibit**

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1.1*	English translation of the Articles of Association <sup>(1)</sup> ( <i>statuts</i> ) of the Registrant.
2.1	Indenture dated as of November 22, 2000 between the Registrant and The Chase Manhattan Bank as Trustee, which includes the form of the 10 5/8% Senior Notes due 2007 as an exhibit thereto. <sup>(2)</sup>
4.1*	1997 Stock Option Plan

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Exhibit No	Exhibit
4.2*	2000 Stock Option Plan
4.3	2001 Stock Option Plan <sup>(3)</sup>
4.4*	2002 Stock Option Plan
4.5	Lease dated as of December 4, 1990 for the Registrant's principal executive offices in Massy, France <sup>(4)</sup>
4.6	Lease dated as of April 2, 1991 for the Registrant's data processing center in London, England <sup>(4)</sup>
4.7	Leases dated as of November 8, 1991 and December 13, 1996 for the Registrant's data processing center in Houston, USA. <sup>(4)</sup>
4.8	Lease dated as of September 1, 1996 for Sercel's factory in Tulsa, USA <sup>(4)</sup>
4.9	Time charter agreement dated as of March 1, 1996 for <i>CGG Föhn</i> , as amended on July 1, 1996. <sup>(4)</sup>
4.10	Time charter agreement dated as of May 7, 1996 for <i>CGG Harmattan</i> , as amended on July 1, 1996. <sup>(4)</sup>
4.11	Time charter agreement dated as of June 1, 1996 for <i>CGG Mistral</i> , as amended on July 1, 1996. <sup>(4)</sup>
4.12	Time charter agreement dated as of December 22, 1997 for <i>CGG Alizé</i> . <sup>(6)</sup>
4.13	Registration Rights Agreement dated December 13, 1999 by and between the Registrant and The Beacon Group Energy Investment Fund II, L.P. <sup>(7)</sup>
4.14	Amendment Agreement in respect of \$180,000,000 Multicurrency Revolving Credit Facility Agreement dated August 31, 2000. <sup>(2)</sup>
4.15	Purchase Agreement dated February 5, 2002 among the Registrant, RBC Dominion Securities Corporation and Salomon Smith Barney Inc. <sup>(3)</sup>
4.16	Registration Rights Agreement dated as of February 8, 2002 by and among the Registrant, RBC Dominion Securities Corporation, Salomon Brothers International Limited <sup>(3)</sup>
7*	Statement re Computation of Ratios.
8*	Subsidiaries of the Registrant.
12.1*	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (10 U.S.C. §1350).
12.2*	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (10 U.S.C. §1350).

## Notes:

\* Filed herewith.

- (1) Incorporated by reference to the Registrant's Report on Form 6-K, dated November 14, 2002.
- (2) Incorporated by reference to the Registrant's Registration Statement on Form F-4 (SEC File No. 333-13060), dated January 11, 2001, as amended.
- (3) Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2002, dated May 3, 2002.
- (4) Incorporated by reference to the Registrant's Registration Statement on Form F-1 (SEC File No. 333-06800), dated April 16, 1997, as amended.
- (5) Incorporated by reference to the Registrant's Report on Form 6-K, dated September 5, 2002.
- (6) Incorporated by reference to the Registrant's Registration Statement on Form F-3 (SEC File No. 333-11074), dated November 3, 1999, as amended.
- (7) Incorporated by reference to the Registrant's Report on Schedule 13D, dated December 13, 2000, as amended.
- (8) Incorporated by reference to the Registrant's Report on Schedule 13D, dated October 16, 2000, as amended.

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**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

COMPAGNIE GÉNÉRALE DE GÉOPHYSIQUE  
(Registrant)

/s/ MICHEL PONTUS

---

Senior Executive Vice President  
Finance & Human Resources and  
Chief Financial Officer

Date: May 14, 2003

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**CERTIFICATIONS**

I, Robert Brunck, Chairman and Chief Executive Officer of the Company certify that:

1. I have reviewed this annual report on Form 20-F of Compagnie Générale de Géophysique;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the Evaluation Date); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 14, 2003

By: /s/ ROBERT BRUNCK

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Robert Brunck  
Chairman and Chief Executive Officer



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I, Michel Ponthus, Senior Executive Vice President Human Resources & Finance, Chief Financial Officer of the Company certify that:

1. I have reviewed this annual report on Form 20-F of Compagnie Générale de Géophysique;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the Evaluation Date); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 14, 2003

By: /s/ MICHEL PONTUS

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Michel PONTUS  
Senior Executive Vice President  
Human Resources & Finance,  
Chief Financial Officer

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

**BARBIER FRINAULT & AUTRES**

41, rue Ybry  
92576 Neuilly-sur-Seine Cedex

**ERNST & YOUNG Audit**

4, rue Auber  
75009 Paris

**Report of independent auditors**

The Board of Directors and Shareholders of

*Compagnie Générale de Géophysique, S.A.*

We have audited the accompanying consolidated balance sheets of Compagnie Générale de Géophysique, S.A., expressed in euros, as of December 31, 2002, 2001 and 2000, and the related consolidated statements of operations, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2002. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Compagnie Générale de Géophysique, S.A. at December 31, 2002, 2001 and 2000, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2002, in conformity with accounting principles generally accepted in France.

Accounting principles generally accepted in France vary in certain significant respects from accounting principles generally accepted in the United States. A description of these differences and a reconciliation of consolidated net income and shareholders' equity to accounting principles generally accepted in the United States are set forth in Note 27 to the consolidated financial statements.

Neuilly-sur-Seine and Paris, France, May 9th, 2003

BARBIER FRINAULT & AUTRES

Represented by  
Pascal Macioce

ERNST & YOUNG Audit

Represented by  
François Hilly

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****CONSOLIDATED BALANCE SHEETS**

	Notes	December 31		
		2002	2001	2000
				(amounts in million of euros)
<b>ASSETS</b>				
Cash and cash equivalents		116.6	56.7	60.1
Trade accounts and notes receivable	3	192.3	274.1	265.2
Inventories and work-in-progress	4	65.2	93.9	90.9
Other current assets)	5	130.9	54.2	51.0
<b>Total current assets</b>		<b>505.0</b>	<b>478.9</b>	<b>467.2</b>
Long term receivable and other investments	6	16.8	19.4	9.0
Investments in and advances to companies under the equity method	6	36.8	51.4	49.2
Property, plant and equipment, net	7	265.0	280.7	140.7
Goodwill and intangible assets, net	8	201.1	184.0	173.2
<b>Total assets</b>		<b>1,024.7</b>	<b>1,014.4</b>	<b>839.3</b>
<b>LIABILITIES AND SHAREHOLDERS EQUITY</b>				
Bank overdrafts		10.5	6.2	12.7
Current portion of long-term debt	10	58.6	24.4	20.8
Trade accounts and notes payable		92.8	96.6	99.4
Accrued payroll costs		50.6	52.5	47.7
Income taxes payable		21.9	28.2	17.9
Advance billings to customers		13.9	12.6	19.0
Other current liabilities	9	38.3	40.5	42.8
<b>Total current liabilities</b>		<b>286.6</b>	<b>261.0</b>	<b>260.3</b>
Long-term debt	10	249.2	255.1	231.0
Other long-term liabilities	11	41.1	25.6	27.3
<b>Total long-term liabilities</b>		<b>290.3</b>	<b>280.7</b>	<b>258.3</b>
Minority interest		10.3	9.9	
Common stock: 24,498,368 shares authorized, 11,680,718 shares with a 2 nominal value issued and outstanding at December 31, 2002; 10,680,718 at December 31, 2001; 10,086,389 at December 31, 2000	12	23.4	23.4	15.4
Additional paid-in capital		310.6	347.5	329.0
Amount receivable from shareholders				
Retained earnings		107.2	54.6	(18.3)
Net income (loss) for the year		17.4	15.7	(12.0)
Cumulative Translation Adjustment		(21.1)	21.6	6.6
<b>Total shareholders equity</b>		<b>437.5</b>	<b>462.8</b>	<b>320.7</b>
<b>Total liabilities and shareholders equity</b>		<b>1,024.7</b>	<b>1,014.4</b>	<b>839.3</b>



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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Notes	December 31		
		2002	2001	2000
		(amounts in million of euros, except share and per share data)		
<b>Operating revenues</b>	15	700.7	802.9	695.3
Cost of operations		(531.4)	(641.7)	(579.9)
<b>Gross profit</b>		169.3	161.2	115.4
Research and development expenses net	16	(27.1)	(35.3)	(26.9)
Selling, general and administrative expenses		(86.7)	(84.8)	(83.2)
Other revenues (expenses) net	17	6.1	13.7	13.5
<b>Operating income (loss)</b>		61.6	54.8	18.8
Interest and other financial income and expense net		(32.6)	(23.0)	(15.9)
Exchange gains (losses) net		7.9	(1.4)	(5.8)
<b>Income (loss) before income taxes</b>		36.9	30.4	(2.9)
Income taxes	18	(17.4)	(16.8)	(10.6)
<b>Income (loss) from consolidated companies</b>		19.5	13.6	(13.5)
Equity in income of affiliates	6	6.4	8.8	2.6
Goodwill amortization	8	(6.3)	(6.5)	(4.7)
Minority interest		(2.2)	(0.2)	3.6
<b>Net income (loss)</b>		17.4	15.7	(12.0)
Weighted average number of shares outstanding		11,680,718	11,609,393	9,389,214
Dilutive potential shares from stock-options		(a)	(a)	95,839
Adjusted weighted average shares and assumed option exercises		11,680,718	11,609,393	9,485,053
<b>Net income (loss) per share</b>				
Basic		1.49	1.35	(1.28)
Diluted		1.49	1.35	(1.28)

(a) For the year ended December 31, 2002 and 2001, the effects of stock options were anti-dilutive.  
See notes to consolidated financial statements

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	December 31		
	2002	2001	2000
	(amounts in million of euros)		
<b>Cash flows from operating activities</b>			
Net income (loss)	17.4	15.7	(12.0)
Depreciation and amortization	134.9	76.4	70.5
Multi-client surveys amortization	87.0	69.7	73.1
Net loss (gain) on sale of assets	(4.3)	(13.4)	(17.0)
Deferred income taxes	2.0		(1.1)
Minority interest	2.2	0.2	(3.6)
Equity in income of investees, net of dividends	(2.9)	(7.2)	(2.1)
Increase (decrease) in other long-term liabilities	5.9	(5.0)	8.8
Other non-cash items	(19.0)	16.9	1.4
Increase/decrease in operating assets and liabilities:			
(Increase) decrease in trade accounts and notes receivable	60.5	(9.8)	(90.5)
(Increase) decrease in inventories and work in progress	16.7	0.3	(4.4)
(Increase) decrease in other current assets	(77.1)	(3.6)	7.2
Increase (decrease) in trade accounts and notes payable	0.6	(5.6)	16.3
Increase (decrease) in other current liabilities	(4.9)	1.4	(21.7)
<b>Net cash provided by operating activities</b>	<b>219.0</b>	<b>136.0</b>	<b>24.9</b>
<b>Cash flows from investing activities</b>			
Purchases of property, plant and equipment	(122.0)	(41.8)	(33.1)
Investments in multi-client surveys	(130.1)	(78.8)	(92.5)
Proceeds from sale of assets	22.2	19.1	11.9
Cash paid for acquired businesses, net of cash acquired	(7.4)	(29.7)	
Investments in and advances to companies under the equity method	(1.2)	(0.2)	
Decrease (increase) in other investments	(2.8)	(0.7)	(0.1)
<b>Net cash used in investing activities</b>	<b>(241.3)</b>	<b>(132.1)</b>	<b>(113.8)</b>
<b>Cash flows from financing activities</b>			
Repayment of long-term debt	(53.6)	(188.8)	(535.1)
Issuance of long-term debt	131.6	200.2	625.8
Repayment of capital lease obligations	(14.0)	(13.6)	(14.9)
Government research grants received	1.1	2.0	1.5
Government research grants repaid	(1.2)	(1.2)	(1.4)
Increase (decrease) in bank overdrafts	5.0	(6.8)	
Net proceeds from capital increase		0.2	1.8
Dividends paid and share capital reimbursements			(0.2)
Contribution from minority shareholders			6.2
<b>Net cash provided by (used in) financing activities</b>	<b>68.9</b>	<b>(8.0)</b>	<b>83.7</b>
Effects of exchange rate changes on cash	13.3	0.7	0.8
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>59.9</b>	<b>(3.4)</b>	<b>(4.4)</b>

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Cash and cash equivalents at beginning of year	56.7	60.1	64.5
	<u>        </u>	<u>        </u>	<u>        </u>
<b>Cash and cash equivalents at end of year</b>	<b>116.6</b>	<b>56.7</b>	<b>60.1</b>
	<b><u>        </u></b>	<b><u>        </u></b>	<b><u>        </u></b>

See notes to consolidated financial statements

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY**

	Number of shares issued <sup>(a)</sup>	Common stock	Additional paid-in capital	Amount receivable from shareholders	Retained earnings	Cumulative translation adjustment	Total shareholders equity
(in millions of euros, except for number of shares)							
<b>As of January 1st, 2000</b>	9,273,384	14.1	274.1	(0.2)	(18.5)		269.5
Capital increase <sup>(a)</sup>	813,005	1.3	55.0	0.2			56.5
Net income					(12.0)		(12.0)
Other			(0.1)		0.2		0.1
Foreign currency translation						6.6	6.6
<b>As of December 31, 2000</b>	10,086,389	15.4	329.0		(30.3)	6.6	320.7
Capital increase <sup>(a)</sup>	1,594,329	8.0	100.5				108.5
Net income					15.7		15.7
Other <sup>(b)</sup>			(82.0)		84.9		2.9
Foreign currency translation						15.0	15.0
<b>As of December 31, 2001</b>	11,680,718	23.4	347.5		70.3	21.6	462.8
Capital increase							
Net income					17.4		17.4
Other <sup>(b)</sup>			(36.9)		36.9		
Foreign currency translation						(42.7)	(42.7)
<b>As of December 31, 2002</b>	11,680,718	23.4	310.6		124.6	(21.1)	437.5

(a) See Note 12

(b) Deduction from Issuance premium for allocation to the carry forward

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Compagnie Générale de Géophysique, S.A. ( CGG ) and its subsidiaries (together, the Group ) is a global participant in the geophysical services industry, providing a wide range of seismic data acquisition, processing and interpretation services as well as related processing and interpretation software to clients in the oil and gas exploration and production business. It is also a global manufacturer of geophysical equipment.

The accounting principles applied by the Group in the preparation of the accompanying financial statements are in conformity with accounting principles generally accepted in France ( French GAAP ) and comply with the regulation Number 99-02 approved by the decree date June 22, 1999 of the French Comité de la Réglementation Comptable .

As CGG is listed on the New-York Stock Exchange (American Depositary Shares), we have to file on Form 20F with the SEC our annual financial statements reconciled with the accounting principles generally accepted in the United States ( U.S. GAAP ). For the years ended December 31, 2000 and 1999 there were no material differences between French GAAP and U.S. GAAP. Beginning with the financial statements for fiscal year 2001, French GAAP differ in certain significant respects from U.S. GAAP. The differences between French GAAP and U.S. GAAP as they relate to the Group, and the reconciliation of net income and shareholders' equity to U.S. GAAP are described in note 27 of the consolidated financial statements.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Euro**

Consolidated financial statements for 2000 and 2001 fiscal years were restated in euro using the fixed exchange rate for French franc to euro of 1.00=FF6.55957. The accompanying 2002 consolidated financial statements have been established in euro.

**Principles of consolidation**

The consolidated financial statements include the accounts of the Company and all majority-owned subsidiaries.

Investments in which ownership interest ranges from 20% to 50% and the Group exercises significant influence over operating and financial policies are accounted for using the equity method. Certain investments where ownership is below 20% may be accounted for using the equity method when significant influence (Board membership or equivalent) of the business is exercised.

All inter-company transactions and accounts are eliminated in consolidation.

**Translation of financial statements of foreign entities and foreign currency transactions**

The accounts of all the Group's foreign subsidiaries are maintained in the local currency, which is the functional currency, with the exception of the accounts of subsidiaries operating in Indonesia and Venezuela. In those cases, the functional currency is the U.S. dollar, the currency in which the entities primarily conduct their businesses.

Foreign currency transactions are translated at the exchange rate prevailing on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are recalculated at year-end exchange rates. The resulting unrealized exchange gains and losses are included in income.

When translating the foreign currency financial statements of foreign subsidiaries to euro, year-end exchange rates are applied to asset and liability accounts, while average annual exchange rates are applied to



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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

income statement accounts. Adjustments resulting from this process are recorded in a separate component of shareholders' equity.

With respect to foreign affiliates accounted for using the equity method, the effects of exchange rate changes on the net assets of the affiliate are recorded in a separate component of shareholders' equity.

**Multi-client survey accounting**

Multi-client surveys consist of seismic surveys to be licensed to customers on a non-exclusive basis. All costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized into the multi-client library. The multi-client library is stated at the survey costs described above less accumulated amortization or fair value if lower. The Company reviews the library for potential impairment for each survey on an ongoing basis.

*Revenue recognition:*

Revenues related to multi-client surveys result from pre-commitments and licenses after completion of the surveys ( After-sales ).

**Pre-commitments** Generally the Company obtains commitments from a limited number of customers before a seismic project is completed. These commitments cover part or all of the survey area blocks. In return for the commitment, the customer typically gains the ability to direct or influence the project specifications, advance access to data as it is being acquired, and favorable pricing.

The Company recognizes pre-commitments as revenue based on the ratio of project cost incurred to total estimated project cost, which is consistent with the physical progress of the project.

**After sales** Generally the Company grants a license entitling non-exclusive access to a complete and ready for use, specifically defined portion of the Company's multi-client data library in exchange for a fixed and determinable payment. The Company recognizes after sales revenue upon the client executing a valid license agreement and having been granted access to the data. Within thirty days of execution and access, the client may exercise the Company's warranty that all the data conforms to technical specifications.

**After sales volume agreements** The Company enters into a customer arrangement in which the Company agrees to grant licenses to the customer for access to a specified number of blocks of the multi-client library. These arrangements typically enable the customer to select and access the specific blocks for a limited period of time. The Company recognizes revenue when the blocks are selected and the client has been granted access to the data.

*Amortization:*

The multi-client surveys are amortized according to three different sets of parameters depending on the area or type of surveys considered:

Gulf of Mexico surveys: amortized on the basis of 66.6% of revenues. Starting at time of data delivery, a minimum straight-line depreciation scheme is applied on a 3 years period, should total accumulated depreciation from sales be below this minimum level,

Rest of the world surveys: same as above except depreciation is 83.3% of revenues and straight-line depreciation is a 5 years period from data delivery,

Long term strategic 2D surveys: amortization on sales according to the above area split and straight-line depreciation on a 7 years period from data delivery.

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### **COMPAGNIE GENERALE DE GEOPHYSIQUE**

#### **Exclusive survey accounting (Proprietary / Contract services)**

The Company performs seismic services for a specific customer. The Company recognizes proprietary/contract revenue as the services are rendered. The Company evaluates the progress to date, in a manner generally consistent with the physical progress of the project, and recognizes revenue based on the ratio of the project's cost to date to the total project cost.

#### **Other geophysical services**

Revenue from the Company's other geophysical services is recognized as the services are performed.

#### **Equipment sales**

Revenues on equipment sales are recognized upon delivery to the customer. Any advance billings to customers are recorded in current liabilities.

#### **Software and hardware sales**

Revenues from the sale of software and hardware products are recognized following acceptance of the product by the customer at which time the Group has no further significant vendor obligations remaining. Any advance billings to customers are recorded in current liabilities.

If an arrangement to deliver software, either alone or together with other products or services, requires significant production, modification, or customization of software, the entire arrangement is accounted for as a production-type contract, i.e. using the percentage of completion method.

If the software arrangement does not require significant production, modification, or customization of software, revenue is recognized when all of the following criteria are met:

the contract is signed,

delivery has occurred,

the fee is fixed or determinable,

collectibility is probable.

If the software arrangement provides for multiple deliverables (e.g. upgrades or enhancements, postcontract customer support such as maintenance, or services), the revenue is allocated to the various elements based on specific objective evidence of fair value, regardless of any separate allocations stated within the contract for each element.

Maintenance revenues consist primarily of postcontract customer support agreements and are recorded as advance billings to customers and recognized as revenue on a straight-line basis over the contract period.

#### **Research and development**

Research and development costs are expensed as incurred.

#### **Government research grants**

For certain of its research projects carried out jointly with other companies, the Group receives financing from government organizations that provide such grants in order to encourage research activities in France. A portion of the grants (between 15% to 45%) is unconditionally repayable and is recorded as debt when received.

The balance is repayable through royalties on future sales only in the event the related research project proves to be successful.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

This conditionally repayable portion of the research grant is recognized as income as the research expenditures are incurred. Any royalties due are recognized as cost of operations as the related sales are recognized.

**Other revenues (expenses)**

Operating results include other revenues and expenses, which comprise revenues and expenses not linked with current activity. It includes gains or losses on sales of assets and non-recurring revenues and expenses, such as gains or losses on partial sales of businesses, impairment of assets and restructuring costs. Unusual items such as lay-off indemnities, out of redundancy plans, and write-down or allowances on current assets related to unusual events are recorded in cost of operations.

**Cash equivalents**

Cash equivalents consist of marketable securities and short-term time deposits generally having original maturities of less than three months and are carried at the lower of cost or market value.

**Inventories and work-in-progress**

*Geophysical services*

Consumables and spare parts inventories are stated at the lower of cost or market value with cost determined on a standard cost basis, which approximates their weighted average historical cost of acquisition.

When the percentage of completion method is not applied, work-in-progress is stated at the lower of cost or realizable value and includes all direct costs incurred in acquiring and processing data for non-completed exclusive surveys.

*Products*

Raw materials and spare parts are stated at the lower of cost or market value with cost determined on a weighted average basis.

Products in progress and finished products are stated at the lower of cost or realizable value and include all direct and indirect costs incurred in manufacturing equipment. General and administrative expenses and research and development costs are not included in inventory.

**Property, plant and equipment**

Property, plant and equipment are stated at cost and include assets acquired under capital lease arrangements.

The Group can receive from the Government non-repayable equipment subsidies which are recorded as a reduction to the cost of the equipment when received and recognized in income as a reduction of depreciation expense over the estimated useful lives of the equipment subsidized.

Property, plant and equipment are depreciated on a straight-line basis over the estimated useful lives of the assets, which are as follows:

Buildings	20 years
Machinery, equipment and vehicles	3 to 5 years
Seismic vessels	12 to 20 years
Office furniture and fixtures	6 to 10 years
Computer hardware and software	3 to 5 years

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

Repairs, maintenance and renewal costs, which do not materially prolong the useful life of an asset, are expensed as incurred.

Upon sale or other disposition, the applicable amounts of asset cost and accumulated depreciation are removed from the accounts and the net amount, less proceeds from disposal, is charged or credited to income in other revenues and expenses.

Inter-company gains on sales of assets and equipment sales made by the geophysical products segment to the geophysical services segment, as well as the related effect on depreciation expense, are eliminated in consolidation.

**Goodwill and intangible assets**

Goodwill, representing the excess of the purchase price over the fair value of net assets of businesses acquired, is amortized on a straight-line basis over the estimated future periods of benefit, which is five years for software activities and from ten to twenty years depending on the other type of businesses acquired.

The difference between the cost of equity method investments and the amount of underlying equity acquired in the net assets of the investee is not included in goodwill, but is classified in investments in companies under the equity method.

Intangible assets also include patents and trademarks, which are amortized on a straight-line basis over their estimated useful lives.

**Impairment of long-lived assets**

Long-lived assets, goodwill and other identifiable intangible assets are written down when, as a result of events or changes in circumstances within the year, their recoverable value appears to have declined on an other than temporary basis to an amount less than their carrying value.

Impairment is determined for each group of autonomous assets (independent operating units or subsidiaries) by comparing their carrying value with the undiscounted cash flows that they are expected to generate based upon management's expectations of future economic and operating conditions.

Should the above comparison indicate that an asset is impaired, the write-down recognized is equivalent to the difference between carrying value and either market value or the sum of discounted future cash flows.

**Unconsolidated investments**

Unconsolidated investments are recorded in Long term receivable and other investments at acquisition cost, less provision for depreciation to reduce them to the fair value.

**Income taxes**

Deferred taxes are calculated on the one hand, on tax losses carried forward and, on the other hand, provided for on timing differences arising between the net assets of consolidated companies and the amount resulting from the application of tax regulations. These amounts are recorded under the liability method based on the tax rates in effect when the temporary differences will reverse. Deferred tax assets are recorded and based on their probability of realization.

Tax credits and other allowances are credited to current income tax expense using the flow-through method of accounting.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

**Pension plans and other post-retirement benefits**

The Group maintains pension plans in various countries as prescribed by local laws and customs. Contributions, based on salaries, are made to the national organizations responsible for the payment of pensions. The Group has no additional liability for these plans.

In France, legislation requires that lump sum retirement indemnities be paid to employees based upon their years of service and compensation at retirement. The actuarial liability of this unfunded obligation is included in other long-term liabilities.

The Group has no significant commitments to provide other post-retirement benefits such as medical costs and life insurance to employees.

**Contingencies**

An estimated loss from a contingency is charged to income if it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. Disclosure is made for loss contingencies not meeting both these conditions if there is a reasonable possibility that a loss may be incurred. In particular, the Group records provisions for future reasonably foreseeable losses on contracts in progress.

No accruals are made for contingent gains.

**Financial instruments**

The Group may enter into forward foreign currency exchange contracts to limit its exposure to currency fluctuations when firm contract commitments exist for net cash flows (contract revenues less costs) to be received in foreign currencies (primarily U.S. dollars). A forward foreign exchange contract obligates the Group to exchange predetermined amounts of specified foreign currencies at specified exchange rates on specified dates or to make an equivalent Euro payment equal to the value of such exchange.

Unrealized gains and losses resulting from changes in forward rates of instruments hedging recognized assets and liabilities are recognized in earnings in the period of change together with the offsetting gain or loss on the hedged item. Changes in the fair value of instruments hedging future commitments should be deferred and will be recognized in earnings on the projected date of the forecasted transaction. If the amounts and maturity dates of forward contracts do not correspond to foreign currency cash flows to be generated by the backlog, the forward contracts should not be qualified as hedges. Accordingly, unrealized gains and losses resulting from changes in forward rates of these contracts should be recorded in earnings. Unrealized gains and losses reflected in income are included respectively in other current assets and other liabilities in the consolidated balance sheet using the accrual method.

The Group also purchases interest rate cap agreements that are designed to limit its exposure to increasing interest rates and are designated as hedges of its long-term debt portfolio. An interest rate cap entitles the Group to receive a payment from the counter-party equal to the excess, if any, of the hypothetical interest expense (strike price) on a specified notional amount at a current market interest rate over an amount specified in the agreement. The only amount the Group is obligated to pay to the counterparty is an initial premium. The strike price of these agreements exceeds the current market levels at the time they are entered into. The interest rate indices specified by the agreements have been and expected to be highly correlated with the interest rates the Group incurs on its long-term debt portfolio. Payments to be received as a result of the specified interest rate index exceeding the strike price are accrued in other assets and are recognized as a reduction of interest expense (the accrual accounting method). The cost of these agreements is included in other assets and amortized to interest expense on a pro rata temporis basis during the life of the agreement.

The Group does not enter into forward foreign currency exchange contracts or interest rate cap agreements for trading purposes nor does it use any other types of derivative financial instruments.



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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

**Earnings per share**

Basic earnings per share is calculated by dividing net income (loss) by the weighted average number of the Company's shares outstanding during the period.

Diluted earning per share is calculated by dividing net income by the weighted average number of shares including the effect of dilutive securities (stock-options).

**NOTE 2 ACQUISITIONS AND DIVESTITURES**

All acquisitions have been accounted for using the purchase method.

**For the year ended December 31, 2002**

On May 21, 2002, Talamantes B.V., a Dutch company and Paradigm Geophysical Ltd ( PGEO ) entered into an Agreement of Merger (the Merger Agreement ) providing for the merger of PGEO into Talamantes or one of its subsidiaries (the Merger ). Pursuant to the Merger Agreement, all PGEO outstanding ordinary shares were to be converted into the right to receive \$5.15 in cash each (the Merger Consideration ), without interest thereon. In consideration of the execution of the Merger Agreement by PGEO, CGG entered into a voting agreement, dated as of May 21, 2002, with Talamantes, by which CGG agrees to vote in favor of the Merger.

The Merger was completed on August 13, 2002 and the shares CGG held in PGEO were therefore converted into the right to receive the Merger Consideration payable upon surrender of the relevant share certificate. We received a total of U.S.\$7.7 million in Merger Consideration. A Euros 2 millions loss was recorded under the item Other revenues and expenses .

On July 4, 2002, the Company acquired a 30% stake in the share capital of CGG Asia-Pacific (ex Teknosif Sdn Bhd) with a value of 405,000 malaysian Ringgit ( 108,000). CGG AP is engaged in data processing activities and is incorporated in Malaysia. This transaction did not generate any material goodwill.

In September 2002, we acquired 7,757.400 shares of PGS for approximately Euros 7.3 million representing a 7.51% stake.

On December 27, 2002, we sold our borehole seismic activity to Baker Atlas, a division of Baker Hughes for U.S.\$12 million cash and we agreed to form a joint venture for the processing and interpretation of borehole seismic data, which was incorporated in February 2003 and in which CGG owns 49%. A Euros 8.4 millions gain was recorded under the item Other revenues and expenses .

**For the year ended December 31, 2001**

On January 16, 2001, the Group acquired two seismic vessels and seismic data from Aker Maritime ASA, a Norwegian corporation.

Under the terms of the agreement, the Group acquired the two seismic vessels *Amadeus* and *Symphony*, operated by Aker Geo, as well as 1,000 Km<sup>2</sup> of recently acquired seismic data. Operating continuity both vis-à-vis current Aker Geo clients and main suppliers constituted an integral part of the agreement. As consideration for this transaction, Aker Maritime received U.S.\$25 million in cash and 1,591,407 shares of the Company, representing 13.6% of the total number of shares issued after the transaction was completed.

The total transaction value was approximately U.S.\$118 million, and did not create any material additional goodwill, compared to the total value of the transaction, as the transaction is by nature a sale of assets.

On December 24, 2001, the Group sold its radio navigation and positioning division Osiris BV to Fugro NV for 7 million in cash.

**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****For the year ended December 31, 2000**

In September 2000, the Group acquired Mark Products from Shaw Industries for an amount of U.S.\$23.8 million. Shaw's Mark Products division, with operations in Houston, Texas and Calgary, Alberta, was sold to Sercel, our geophysical equipment manufacturing business. As consideration, Shaw received 352,237 ordinary shares of CGG, which represented 3.7% of the outstanding CGG shares. Mark Products is a leading manufacturer of geophones, hydrophones, cables and connectors utilized for land, marine and transition zone geophysical applications worldwide.

The transaction generated a goodwill of 14.3 million, which is being amortized over 10 years.

In October 2000, CGG's Flagship reservoir interpretation and characterization software division of the Group was merged within Paradigm Geophysical, a public company listed on the NASDAQ market.

We received in exchange for Flagship 1.5 million Paradigm shares, valued at U.S.\$7 each, and U.S.\$4 million in cash. CGG's equity stake in Paradigm represents approximately a 10.2% holding in the company.

Under the agreement, Paradigm acquired CGG's Flagship operations, which include the products Integral Plus and Stratimagic.

In addition, the Group and Paradigm develop a technological cooperation in the domain of interpretation software. The common goal of this strategic development has been materialized by our significant equity participation in Paradigm, and we benefit from one seat on the Board of Directors of Paradigm, where we are the sole industrial shareholder. The stake in Paradigm has been accounted for under the equity method, generating an in-built goodwill of 6.3 million, amortized over 5 years due to the nature of the activity.

In October 2000, the Group acquired the 40% minority interest of Louis Dreyfus Armateurs (LDA) within CGG Marine (the remaining 60% being already owned by CGG) and 50% of Kantwell Overseas Shipping, future owner of the seismic ship CGG Mistral. The transaction was finalized on December 21, 2000.

LDA contributed 6.2 million to CGG's subsidiary CGG Marine during 2000 prior to CGG's purchase of LDA's interest in the subsidiary.

The upgrade of the seismic vessel Mistral to a 10-steamers capacity took place through the creation of a joint company (Kantwell Overseas Shipping) to which the Mistral, currently owned by LDA, sold in its present condition. The upgrade started at the end of the second half of 2001 and was achieved in June 2002. Upon delivery from the shipyard, CGG Marine operated the Mistral under a 7-year time charter granted by the joint venture, new owner of the vessel. As consideration for these transactions, LDA received 413,969 CGG shares. The total transaction value was approximately U.S.\$24.2 million, generating a goodwill on the purchase of CGG Marine's shares of 13.3 million, which is being amortized over 10 years.

**NOTE 3 TRADE ACCOUNTS AND NOTES RECEIVABLE**

	<b>December 31</b>		
	<b>2002</b>	<b>2001</b>	<b>2000</b>
	(in millions of euros)		
Trade accounts and notes receivable	178.8	273.1	258.4
Recoverable costs and accrued profit not billed	27.2	20.3	15.8
Less: allowance for doubtful accounts	(7.0)	(7.0)	(5.4)
<b>Subtotal</b>	<b>198.2</b>	<b>286.4</b>	<b>268.8</b>
Less: long-term portion included in long-term receivables	(5.9)	(12.3)	(3.6)

<b>Trade accounts and notes receivable net</b>	<b>192.3</b>	<b>274.1</b>	<b>265.2</b>
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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE**

In the geophysical services segment, customers are generally large, national or international oil and gas companies, which management believes reduces potential credit risk. In the geophysical products segment, a significant portion of sales is paid by irrevocable letters of credit.

The Group maintains an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information. Credit losses have not been material for the periods presented and have consistently been within management's expectations.

Recoverable costs and accrued profit not billed comprise amounts of revenue recognized under the percentage of completion method on contracts for which billings had not been presented to the contract owners because the amounts were not billable at the balance sheet date. Such unbilled account receivables are billable over the next 60 days.

The long-term receivables as of December 31, 2002 are mainly related to contracts concluded by Sercel.

**NOTE 4 INVENTORIES AND WORK IN PROGRESS**

	December 31				
	2002		2001	2000	
	Cost	Valuation Allowance	Net	Net	Net
(in millions of euros)					
<i>Geophysical services</i>					
Consumables and spare parts	22.0	(1.8)	20.2	30.8	21.6
<i>Geophysical products</i>					
Raw materials and spare parts	29.6	(13.9)	15.7	24.8	17.2
Products in progress	30.4	(8.9)	21.5	28.4	37.8
Finished goods	13.7	(5.9)	7.8	9.9	14.3
<b>Inventories and work in progress</b>	<b>95.7</b>	<b>(30.5)</b>	<b>65.2</b>	<b>93.9</b>	<b>90.9</b>

Inventories and work-in-progress are presented net of valuation allowances for 35.0 million at December 31, 2001 and 26.4 million at December 31, 2000.

**NOTE 5 OTHER CURRENT ASSETS**

	December 31		
	2002	2001	2000
	(in millions of euros)		
Value added tax, government grants and other receivables	94.9	21.6	23.9
Prepaid rent, vessel charters and other expenses	8.2	9.2	9.6
Prepaid income tax	5.9	8.0	3.8
Deferred tax assets	4.3	3.5	4.2
Prepaid expenses	7.6	7.8	8.0
Supplier prepayments	4.7	3.8	1.5
Unrealized exchange gains on forward contracts	5.3	0.3	

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<b>Other current assets</b>	130.9	54.2	51.0
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The item Value added tax, government grant and Other receivables includes as of December 31, 2002 the insurance indemnities to be received with respect to the shipwreck of the CGG Mistral in December 2002 for 62.3 million, of which 40.1 million related to the vessel were settled by the insurance companies in January and February 2003. The indemnities to be received for the on board geophysical equipments were accrued based upon the claim filed with the expert of the insurance companies.

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Prepaid expenses are principally related to expenses incurred on financing operations, spread over the life of the obtained credits.

**NOTE 6 LONG TERM RECEIVABLE & OTHER INVESTMENTS INVESTMENTS IN AND ADVANCES TO COMPANIES  
ACCOUNTED FOR USING THE EQUITY METHOD**

**Long term receivable & other investments**

	December 31		
	2002	2001	2000
	(in millions of euros)		
Long term receivable	5.9	12.3	3.6
Other financial investments			
Unconsolidated investments	4.2	1.5	
Other	6.7	5.6	5.4
<b>Total</b>	<b>16.8</b>	<b>19.4</b>	<b>9.0</b>

Unconsolidated investments included in Long term receivable and other investments are presented as follows as of December 31, 2002:

	2002	2001	2000
	(in millions of euros)		
Group interest > 50%	0.1	0.5	0.5
Group interest between 20% and 50%			
Group interest < 20%	8.8	1.6	
<b>Gross</b>	<b>8.9</b>	<b>2.1</b>	<b>0.5</b>
Allowance	(4.7)	(0.6)	(0.5)
<b>Net book value</b>	<b>4.2</b>	<b>1.5</b>	

The above-mentioned less than 20% included principally our 7.51% stake in PGS for an amount of 7.3 million, which was depreciated for 4.1 million as of December 31, 2002, based on the average stock market prices in New York and Oslo for December 2002.

**Investments accounted for using the equity method**

	December 31		
	2002	2001	2000
	(in millions of euros)		
Balance at beginning of year	51.4	49.2	25.4
Investments made during the year			20.3
Net variation in advances and loans to equity investees	1.4		

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Equity in income including amortization of goodwill <sup>(a)</sup>	6.4	8.8	2.6
Dividends received during the year, reduction in share capital	(3.5)	(1.5)	(0.4)
Changes in exchange rates	(8.5)	2.4	1.6
Other <sup>(b)</sup>	(10.6)	(7.5)	(0.3)
	<u>        </u>	<u>        </u>	<u>        </u>
<b>Balance at end of year</b>	<b>36.8</b>	<b>51.4</b>	<b>49.2</b>
	<b>————</b>	<b>————</b>	<b>————</b>

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(a) includes goodwill amortization related to Paradigm respectively for 0.8, 1.3 and 0.3 million in 2002, 2001 and 2000.

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE**

- (b) relates primarily to divestiture (sale of Paradigm stock in 2002) and valuation allowances recorded against receivables from affiliates with a negative net worth.

Investments in and advances to companies under the equity method are comprised of:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	(in millions of euros)		
Argas	20.5	19.4	10.6
Geomar	5.6	5.6	5.6
Zhong Hai		0.1	0.4
JV XPEIC/Sercel Limited	3.3	4.6	4.0
Kantwell Overseas Shipping			9.1
Paradigm		10.6	11.1
Other <sup>(a)</sup>	7.4	11.1	8.4
	<u>36.8</u>	<u>51.4</u>	<u>49.2</u>
<b>Investments in companies under the equity method</b>	<b>36.8</b>	<b>51.4</b>	<b>49.2</b>

- (a) includes loans and advances to companies accounted for under the equity method at December 31, 2002, 2001 and 2000 for 7.4 million, 8.8 million and 8.3 million, respectively.

The net contribution to equity of affiliates accounted for under the equity method is as follows:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	(in millions of euros)		
Argas	16.1	15.1	6.3
Geomar			
Zhong Hai		(0.4)	(0.1)
JV XPEIC/Sercel Limited	1.7	3.1	2.4
Kantwell			(1.0)
Paradigm		(1.4)	(0.9)
	<u>17.8</u>	<u>16.4</u>	<u>6.7</u>
<b>Total</b>	<b>17.8</b>	<b>16.4</b>	<b>6.7</b>

The key figures relating to Argas's financial statements are as follows:

	<u>2002</u>	<u>2001</u>
	(in millions euros)	
Current assets	44.1	35.1
Fixed assets	59.1	85.8
Current liabilities	28.2	40.6
Non current liabilities	25.1	36.1
Gross revenue	86.5	80.7
Gross profit	23.2	22.7
Income from continuing operations before extraordinary items and cumulative effect of change in accounting principle	19.7	19.5



Net income

19.7

19.5

■

■

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****NOTE 7 PROPERTY, PLANT AND EQUIPMENT**

	December 31						
	2002			2001			2000
	Cost	Acc. Dep.	Net	Cost	Acc. Dep.	Net	Net
	(in millions of euros)						
Land	5.0	(0.2)	4.8	4.9	(0.2)	4.7	4.7
Buildings	50.8	(31.6)	19.2	52.8	(30.9)	21.9	19.6
Machinery and equipment	436.7	(334.7)	102.0	412.3	(333.6)	78.7	81.0
Vehicles and vessels	202.5	(88.5)	114.0	238.6	(86.7)	151.9	15.0
Office furniture and fixtures	33.4	(21.9)	11.5	33.2	(21.8)	11.4	8.4
Computer hardware & software	21.1	(11.7)	9.4	17.6	(9.3)	8.3	5.9
Assets under construction	4.1		4.1	3.8		3.8	6.1
<b>Total</b>	<b>753.6</b>	<b>(488.6)</b>	<b>265.0</b>	<b>763.2</b>	<b>(482.5)</b>	<b>280.7</b>	<b>140.7</b>

The significant decrease of the item Vehicles and vessels results from the loss of the seismic vessel CGG Mistral .

Included above are land, buildings and geophysical equipment recorded under capital leases as follows:

	December 31						
	2002			2001			2000
	Cost	Acc Dep	Net	Cost	Acc Dep	Net	Net
	(in millions of euros)						
Land and buildings	5.9	(5.2)	0.7	5.9	(5.1)	0.8	1.2
Geophysical equipment	28.0	(15.6)	12.4	33.9	(19.2)	14.7	14.3
<b>Total</b>	<b>33.9</b>	<b>(20.8)</b>	<b>13.1</b>	<b>39.8</b>	<b>(24.3)</b>	<b>15.5</b>	<b>15.5</b>

Depreciation of assets recorded under capital leases is determined on the same basis as owned assets and is included in depreciation expense.

Included in assets recorded under capital leases are land and buildings of one of the Group's French offices in Massy, which were sold under a sale-leaseback agreement in 1990. The assets are maintained at their original cost and the buildings continue to be depreciated over their initial estimated useful lives.

Included in cost of operations is an amount of 19.7 million in 2002, 18.1 million in 2001 and 14.3 million in 2000 representing repairs and maintenance expense.

**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****NOTE 8 GOODWILL AND INTANGIBLE ASSETS**

	December 31		
	2002	2001	2000
	(in millions of euros)		
Goodwill of consolidated subsidiaries	90.4	103.5	99.8
Less: accumulated amortization	(18.7)	(14.8)	(8.0)
<b>Goodwill net</b>	<b>71.7</b>	<b>88.7</b>	<b>91.8</b>
Multi-client surveys	429.0	323.9	265.5
Less: accumulated amortization	(301.9)	(232.0)	(188.0)
<b>Multi-client surveys net</b>	<b>127.1</b>	<b>91.9</b>	<b>77.5</b>
Patents, trademarks and other intangible assets	5.7	6.7	6.4
Less: accumulated amortization	(3.4)	(3.3)	(2.5)
<b>Other intangible assets net</b>	<b>2.3</b>	<b>3.4</b>	<b>3.9</b>
<b>Total Goodwill and Intangible assets net</b>	<b>201.1</b>	<b>184.0</b>	<b>173.2</b>

Goodwill amortization expense amounted to 6.3 million in 2002, 6.5 million in 2001 and 4.7 million in 2000.

It should be noted that, as part of an impairment test performed on our Service and Product segments, which include goodwill and intangibles assets, it was not recorded any impairment as of December 31, 2002.

Multi-client surveys net value increased due to the development of programs of investment initiated more particularly in Brazil.

**NOTE 9 OTHER CURRENT LIABILITIES**

The analysis of other current liabilities is as follows:

	December 31		
	2002	2001	2000
	(in millions of euros)		
Provisions for restructuring costs	0.8	0.8	3.4
Provisions for contract losses and litigation	5.4	2.2	6.0
Deferred income	8.9	11.6	6.3
Value added tax and other taxes payable	10.0	10.1	8.8
Unrealized exchange losses on forward contracts		0.2	0.8
Deferred tax expense (short term)	0.7	0.9	2.1
Other liabilities <sup>(a)</sup>	12.5	14.7	15.4
<b>Other current liabilities</b>	<b>38.3</b>	<b>40.5</b>	<b>42.8</b>

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(a) includes short term part of the provisions for liabilities and charges for M 5.9, M 4.7 and M 5.9 as of December 31, 2002, 2001 and 2000 respectively (see Note 24).

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****NOTE 10 LONG TERM DEBT**

Analysis of long-term debt by type is as follows:

	December 31						
	2002			2001			2000
	Current	Long-term	Total	Current	Long-term	Total	Total
	(in millions of euros)						
<b>Outstanding bonds</b>		214.6	214.6		192.9	192.9	182.7
Bank loans	41.8	12.3	54.0	9.7	34.9	44.6	30.7
Capital lease obligations	13.4	22.3	35.8	11.8	27.3	39.1	35.7
<b>Sub-total</b>	<u>55.2</u>	<u>249.2</u>	<u>304.4</u>	<u>21.5</u>	<u>255.1</u>	<u>276.6</u>	<u>249.1</u>
Accrued interest	3.4			2.9			
<b>Total</b>	<u>58.6</u>			<u>24.4</u>			

At December 31, 2002, 80.2 million of bank loans were secured by tangible assets and receivables.

Analysis of long-term debt (including amounts due within one year) by currency is as follows:

	December 31		
	2002	2001	2000
	(in millions of euros)		
Euro	39.9	65.5	45.5
U.S. dollar	259.9	205.5	200.6
Other currencies	4.6	5.6	3.0
<b>Total</b>	<u>304.4</u>	<u>276.6</u>	<u>249.1</u>

Analysis of long-term debt (including amounts due within one year) by interest rate is as follows:

	December 31		
	2002	2001	2000
	(in millions of euros)		
Variable rates (effective rate December 31, 2002: 4.87%; 2001: 5.59%; 2000: 7.10%)	21.3	44.2	33.4
Fixed rates (effective rate December 31, 2002: 9.47%; 2001: 9.92%; 2000: 9.99%)	283.1	232.4	215.7

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<b>Total</b>	<u>304.4</u>	<u>276.6</u>	<u>249.1</u>
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Variable interest rates generally are based on inter-bank offered rates of the related currency. The weighted average interest rate on bank overdrafts was 10.95%, 9.92%, and 13.99% at December 31, 2002, 2001 and 2000, respectively. The impact of hedging instruments has not been considered in the above two tables.

The annual maturities of long-term debt are set forth in Note 14.

On November 17, 2000, the Group issued U.S.\$170 million aggregate principal amount of 10 5/8% Senior Notes due 2007 in the international capital markets. The Group used the approximately U.S.\$64.9 million of net proceeds to repay a portion of outstanding indebtedness under the existing syndicated credit facility and to fund the U.S.\$25 million cash portion of the purchase price of two marine seismic vessels and certain seismic data from an affiliate of Aker. A standard covenant package is attached to the bond, with a main incurrence test of coverage of interest by EBITDA. The Group was in compliance with the bond covenants on the date of issue, and at year-end.

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On February 5, 2002, the Group issued in addition to the bonds issued on November 2000, bonds in a total principal amount of US\$55 millions, with a maturity date in 2007 and with an annual fixed rate of 10 5/8%.

The bulk of the financial resources of the Group consists of, in addition to the U.S.\$225 million bonds, a syndicated bank line of U.S.\$72 million, amortizing by half-yearly installments or cancellations over two years started in September 2002.

In addition to the covenants pertaining to this syndicated line of credit, the terms of certain other bank loan agreements contain, among other provisions, requirements for maintaining certain financial ratios, primarily debt to equity ratios. At December 31, 2002, the Group was in full compliance with all of these provisions. In the event the Group does not comply with one of these financial ratios, the banks could request immediate repayment of the loans.

At December 31, 2002 the Group had 10.2 million available in unused short-term credit lines and overdraft facilities and 68.6 million in unused long-term credit lines.

**NOTE 11 OTHER LONG-TERM LIABILITIES**

Other long-term liabilities consist of the following:

	<b>December 31</b>		
	<b>2002</b>	<b>2001</b>	<b>2000</b>
	(in millions of euros)		
Government research grants	5.1	5.2	4.5
Retirement indemnity provisions	10.2	8.5	7.6
Employee profit sharing	8.7	7.7	5.6
Deferred income tax (long term)	12.0	0.1	0.1
Other liabilities <sup>(a)</sup>	5.1	4.1	9.5
<b>Other long-term liabilities</b>	<b>41.1</b>	<b>25.6</b>	<b>27.3</b>

(a) includes long-term part of the provisions for liabilities and charges for M 1.8, M 0.8 and M 0.1 as of December 31, 2002, 2001 and 2000 respectively (see Note 24).

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The status of the retirement indemnity plans is as follows:

	December 31		
	2002	2001	2000
	(in millions of euros)		
Accumulated benefit obligation (unvested)	5.0	4.7	4.3
Projected benefit obligation	10.6	9.1	8.2
Fair value of plan assets			
Unrecognized loss arising from change in assumed discount rate	0.4	0.5	0.6
Accrued provision	10.2	8.6	7.6
Service cost	1.3	1.1	0.4
Interest expense	0.4	0.5	0.4
Amortization of loss arising from change in discount rate	0.1	0.1	0.1
Net pension cost	1.8	1.7	0.9
Benefit payments	0.2	0.7	0.7
Curtailment			
Net changes	1.6	1.0	0.2
Key assumptions used in estimating the Group's retirement obligations are:			
Discount rate	6.0%	6.0%	6.0%
Average rate of increase in future compensation	4.0%	4.0%	4.0%

**NOTE 12 COMMON STOCK AND STOCK OPTION PLANS**

The Company's share capital at December 31, 2002 consisted of 11,680,718 shares, each with a nominal value of 2.

**Conversion of the share capital into Euro**

The Board of Directors in its meeting dated March 14, 2001, acting by virtue of the authorization granted by the General Meeting dated May 17, 2000, decided to convert the share capital into euro by conversion of the nominal share value and to round up this nominal value to the nearest euro.

Therefore, the nominal share value is stated at 2, which on the basis of the previous nominal value of FRF 10 (1.52) has involved an increase of the share nominal value of FRF 3.12 per share. To reflect this capital increase of 5,553,116 the relevant sum has been deducted from the account Issuance premium.

**Issued Shares**

No changes on the common stock occurred in 2002.

During 2001, the Company issued 1,594,329 fully paid shares increasing the nominal value of shares outstanding to 23.4 million at December 31, 2001. This increase included:

1,591,407 ordinary shares issued in January 2001, at a subscription price of 69.265 per share and allocated to Aker Geo Seismic in compensation for the contributions in kind carried out by Aker with their shares held in Aker RGIF, a company holding two vessels. The



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shares issued in connection with this acquisition were valued at 110.2 million. Fees and expenses related thereto amounted to 1.7 million. (See Note 2).

2,922 ordinary shares issued to employees in connection with stock options exercised at a price of 47.7 and 61.03 from which the Company received net proceeds of 0.1 million.

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During 2000, the Company issued 813,005 fully paid shares increasing the nominal value of shares outstanding to 15.4 million at December 31, 2000. This increase included:

413,969 ordinary shares issued in December 2000, at a subscription price of 69.265 per share and allocated to LDA in compensation for the contributions in kind carried out by LDA with their shares held in CGG Marine and secondly with 50% of the shares held in Kantwell Overseas Shipping. The Company received from this issuance net proceeds of 27.1 million. (See Note 2).

352,237 ordinary shares issued in September 2000, for a total global amount of 26.5 million at a subscription price of approximately 75.31 per share and allocated up to 140,895 Shares to Shaw Industries Ltd. and up to 211,342 Shares to Shaw Resource Services Inc., a subsidiary of Shaw Industries Ltd. This issuance was carried out in compensation for the contribution in kind performed by Shaw Industries and Shaw Resource Services of the notes they respectively held towards Sercel Canada and Sercel Inc. following the acquisition by Sercel from Shaw of their Mark Products division. The Company received from this issuance net proceeds of 27.9 million. (See Note 2).

36,586 ordinary shares issued to employees in connection with stock options exercised at a price of 24.23 from which the Company received net proceeds of 0.9 million. (Stock options plan dated October 19, 1995 and ended on October 19, 2000).

1,779 ordinary shares issued to employees in connection with stock options exercised at a price of 47.7 from which the Company received net proceeds of 0.09 million. (Stock option plan dated December 13, 1996).

8,434 ordinary shares issued to employees in connection with stock options exercised at a price of 61.03 from which the Company received net proceeds of 0.5 million. (Stock option plan dated May 5, 1997).

During 2000, in connection with the Group Employees Saving Plan issued in 1997, the Company received net proceeds of 0.3 million related to shares payable in several installments.

**Dividend rights**

Dividends may be distributed from the statutory retained earnings, subject to the requirements of French law and the Company's articles of incorporation. Retained earnings available for distribution totaled 6.9 million at December 31, 2002.

**Stock options**

Pursuant to various resolutions adopted by the Board of Directors, the Group has granted options to purchase Ordinary Shares to certain employees, executive officers and directors of the Group.

Pursuant to a resolution adopted by the Board of Directors, the Company has instituted a new stock option on May 15, 2002. Options granted under this new plan which expires eight years from the date of grant, are vested by one fifth each year from May 2002 and cannot be generally exercised before 2005; options to subscribe 1000 shares or more can not be sold before May 15, 2006.

Twenty percent of options granted in 1997 can be exercised in every twelve month period and expire 8 years from the date of grant. Options granted under the provisions of the 2000 option plan which expires 8 years from the date of grant can not be generally exercised before 2003 and the options to subscribe 1000 shares or more can not be sold before January 18, 2005. Options granted under the provisions of the 2001 option plan, which expires 8 years from the date of grant, are vested by one fifth each year from March 2001 and cannot be generally exercised before 2004 and the options to subscribe 1000 shares or more can not be sold before January 18, 2005. The exercise price for each option is the average fair market value for the common stock during the 20 trading days ending on the trading day next preceding the date the option is granted.

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Information relating to options outstanding at December 31, 2002 is summarized below:

<b>Date of Board of Directors</b>	<b>Resolution</b>	<b>Options granted</b>	<b>Options outstanding at Dec. 31, 2002</b>	<b>Exercise price per share ( )</b>	<b>Expiration date</b>
May 5, 1997		100,000	58,135	61.0	May 4, 2005
January 18, 2000		231,000	214,750	49.9	January 17, 2008
March 14, 2001		256,000	242,000	71.2	March 13, 2009
May 15, 2002		138,100	133,450	43.5	May 14, 2010
		<u>725,100</u>	<u>648,335</u>		

A summary of the Company's stock option activity, and related information for the years ended December 31 follows:

	<b>2002</b>		<b>2001</b>		<b>2000</b>	
	<b>Number of options</b>	<b>Weighted average exercise price</b>	<b>Number of options</b>	<b>Weighted average exercise price</b>	<b>Number of options</b>	<b>Weighted average exercise price</b>
Outstanding-beginning of year	532,381	61.27	292,922	52.34	129,956	49.01
Granted	138,100	43.47	256,000	71.20	231,000	49.89
Exercised			(2,922)	53.33	(46,799)	31.75
Forfeited	(22,146)	59.11	(13,619)	57.51	(21,235)	50.82
Outstanding-end of year	<u>648,335</u>	<u>57.55</u>	<u>532,381</u>	<u>61.27</u>	<u>292,922</u>	<u>52.34</u>
Exercisable-end of year	<u>58,135</u>	<u>61.03</u>	<u>48,097</u>	<u>61.03</u>	<u>42,421</u>	<u>59.77</u>

In December 1996, the French Parliament adopted a law that requires French companies to pay French social contributions and certain salary-based taxes, which may represent, for the Company, up to 50% of the taxable salary, on the difference between the exercise price of a stock option and the fair market value of the underlying shares on the exercise date if the beneficiary disposes of the shares before a five year period following the grant of option.

The new law is consistent with personal income tax law that requires individuals to pay income tax on the difference between the option exercise price and the fair value of the shares at the grant date if the shares are sold or otherwise disposed of within five years of the option grant. The law applies to all options exercised after January 1, 1997.

The Group has not recorded a liability for social charges which may be assessed for options granted as of December 31, 2000, 2001 and 2002 as the liability, being dependent on future trading values of the Company's shares and the timing of employees' decisions to exercise options and sell the related shares cannot be estimated. The Group also does not consider that the liability is probable due to the income tax disincentives to employees of exercising options and selling the shares in less than a five-year period or four year for the plan dated March 2001.

**NOTE 13 FINANCIAL INSTRUMENTS****Foreign currency exposure management**

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The reporting currency for the Group's consolidated financial statements is the Euro. However, as a result of having primarily customers, which operate in the oil and gas industry, more than 90% of the Group's operating revenues are denominated in currencies other than the Euro, primarily the U.S. dollar.

As a result, the Group's sales and operating income are exposed to the effects of fluctuations in the value of the Euro versus the U.S. dollar. A strengthening of the Euro compared to the U.S. dollar has a negative effect on

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the Group's net sales and operating income denominated in U.S. dollars when translated to Euro, while a weakening of the Euro has a positive effect. In addition, the Group's exposure to fluctuations in the Euro / U.S. dollar exchange rate has considerably increased over the last few years due to increased sales outside of Europe.

In order to improve the balance of its net position of receivables and payables denominated in foreign currencies, the Group maintains a portion of its financing in U.S. dollars. At December 31, 2002, 2001 and 2000, the Group's long-term debt denominated in U.S. dollars amounted to U.S.\$272.6 million, U.S.\$181.1 million and U.S.\$186.6 million, respectively. The Group also attempts to improve this balance by entering into forward exchange contracts.

In addition, to protect against the reduction in the value of future foreign currency cash flows, the Group follows a policy of selling U.S. dollars forward at average contract maturity dates which the Group attempts to match with future net U.S. dollar cash flows (revenues less costs in U.S. dollars) to be generated by firm contract commitments in its backlog generally over the ensuing six months. A similar policy, to a lesser extent, is carried out with respect to contracts denominated in British pounds. This foreign currency risk management strategy has enabled the Group to reduce, however, not eliminate the positive or negative effects of exchange movements with respect to these currencies.

Details of forward exchange contracts are as follows:

	December 31		
	2002	2001	2000
Notional amount (in millions of U.S.\$)	132.8	89.0	100.5
Weighted average maturity	94 days	59 days	62 days
Weighted average forward Euro/ U.S.\$ exchange rate	0.9743	0.8848	0.9332
Unrealized exchange gains (losses) (in millions of Euros) <sup>(a)</sup>	9.7	(0.4)	(0.3)

(a) 5.2 million of unrealized exchange profit was designated as a hedge of foreign currency commitments in 2002 and deferred in the future period. Equivalent amount was respectively a profit of 0.2 and 0.5 million in 2001 and 2000.

Only three subsidiaries of the Group are located in countries where hyperinflation could be encountered for the past three years, namely, Venezuela, Indonesia and Mexico. The functional currency retained for the Venezuela and Indonesia subsidiaries is the U.S.\$ For Mexico, the applicable rates are as follows:

	December 31		
	2002	2001	2000
Exchange rate compared to Euro	10.89	8.10	8.96
General price index (base changed in 2002)	102.9	97.4	93.5

The calculation of the evolution over three years shows an average price increase of 10%, which does not qualify for hyperinflation.

**Interest rate risk management**

Since 1996, the Group maintains interest rate cap agreements to reduce the sensitivity of interest expense on its variable-rate debt to increases in interest rates.

No new agreement was subscribed since July 2002.



**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****Fair value information**

The carrying amounts and fair values of the Group's financial instruments are as follows:

	2002		2001		2000	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	(in millions of euros)					
Cash and cash equivalents	116.6	116.6	56.7	56.7	60.1	60.1
Bank overdraft facilities	10.5	10.5	6.2	6.2	12.7	12.7
Bank loans, vendor equipment financing and shareholder loans:						
Variable rate	21.3	21.3	44.2	44.2	33.4	33.4
Fixed rate	283.1	320.3	232.4	265.6	215.7	210.6
Foreign currency exchange contracts	9.7	9.2	(0.4)	(0.6)	(0.8)	

The Group considers the carrying value for loan receivable and other investments, trade accounts and notes receivable, other receivables, trade accounts and notes payable and other current liabilities to be the most representative estimate of fair value.

For bank loans with fixed interest rates, the fair values have been estimated using discounted cash flow analyses based on the Group's incremental borrowing rates for similar types of borrowing arrangements. For variable-rate bank loans, vendor equipment financing and the shareholder loans, fair values approximate carrying values.

The fair values of foreign currency exchange contracts are estimated based on current forward exchange rates for contracts with comparable maturities.

**NOTE 14 CONTRACTUAL OBLIGATIONS, COMMITMENTS AND CONTINGENCIES****Contractual obligations**

The Group leases primarily land, buildings and geophysical equipment under capital lease agreements expiring at various dates during the next five years. These capital lease commitments include the sale-leaseback agreement with respect to the Group's head office in Massy.

The Group also operates presently seismic vessels under long-term charter agreements with ship-owners that expire at various dates over the next 6 to 60 months. Since April 1999, the Group has been operating a new seismic vessel under a long-term charter agreement, already signed at December 31, 1998, valid for a period of 8 years.

Other lease agreements relate primarily to operating leases for offices, computer equipment and other items of personal property.

Rental expense was 83.9 million in 2002, 78.8 million in 2001 and 71.2 million in 2000.

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The following table presents on the future periods payments relating to contractual obligations as of December 31, 2002:

	Payments due by period				Total
	Less than 1 year	1-3 years	4-5 years	After 5 years	
	(in million of euros)				
Long-term debt (Note 10)	41.9	7.4	217.4	1.9	268.6
Capital Lease Obligations	14.6	15.6	10.6		40.8(a)
Operating Leases	47.9	54.9	39.2	2.8	144.8
Other long-term Obligations (bond interest)	23.0	45.6	45.6		114.2
<b>Total Contractual Obligations</b>	<b>127.4</b>	<b>123.5</b>	<b>312.8</b>	<b>4.7</b>	<b>568.4</b>

(a) includes M 5.0 of interest.

**Other commitments**

Outstanding commitments at December 31, 2002 include the following:

	2002	2001	2000
	(in millions of euros)		
Guarantees issued in favor of clients	57.2	33.2	24.6
Guarantees issued in favor of banks	3.5	22.6	20.3
Notes receivable discounted			
Other guarantees <sup>(a)</sup>	16.5	48.6	43.1
<b>Total</b>	<b>77.2</b>	<b>104.4</b>	<b>88.0</b>

(a) other guarantees relate primarily to guarantees issued by the Company on behalf of subsidiaries and affiliated companies in favor of customs or administrations

The increase of guarantees issued in favor of clients relates to guarantees given for bids.

Other guarantees represent essentially the customs guarantees given to the Brazilian authority for temporary admission of our seismic vessels in Brazilian waters for Real 36 millions (BRL), approximately M 10.

There are no significant commitments for capital expenditures at December 31, 2002.

	Due date				Total
	Less than 1 year	1-3 years	4-5 years	After 5 years	
	(in millions of euros)				



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Guarantees issued in favor of clients	55.7	1.3	0.2		57.2
Guarantees issued in favor of banks	2.1	1.4			3.2
Other guarantees		16.5			16.5
	—	—	—	—	—
<b>Total</b>	<b>57.8</b>	<b>19.2</b>	<b>0.2</b>		<b>77.2</b>
	—	—	—	—	—

Besides, the agreement relating to the sale of our Borehole seismic data acquisition business to Baker Hughes contains reciprocal representations and warranties as usually included in such transaction.

Previous transactions entered into by the Group contained similar provisions.

There are no significant commitments undescribed above according to the accounting standards.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

**Legal proceedings, claims and other contingencies**

The Group is a defendant in a number of legal proceedings arising in the ordinary course of business and has various unresolved claims pending. The outcome of these lawsuits and claims is not known at this time. The Group believes that the resulting liability, if any, net of amounts recoverable from insurance or other sources, will not have a material adverse effect on its consolidated results of operations, financial position, or cash flows.

The Company has been sued by Parexpro (Portugal), for termination without cause of employment agreements and solicitation of a significant number of highly qualified staff in the field of reservoir evaluation, misappropriation of confidential information and documentation, clients, and loss of profits resulting therefrom.

This latter claim should not have any material impact on the Group's results of operation, financial position, or cash flows.

**NOTE 15 ANALYSIS BY OPERATING SEGMENT AND GEOGRAPHIC ZONE**

The following tables present revenues, operating income and identifiable assets by operating segment, revenues by geographic zone (by origin) as well as net sales by geographic zone based on the location of the customer.

The Group principally services the oil and gas exploration and production industry and currently operates in two industry segments:

Geophysical services, which consist of (i) land seismic acquisition, (ii) marine seismic acquisition, (iii) other geophysical acquisition, including activities not exclusively linked to oilfield services, and (iv) data processing, and data management;

Products, which consist of the manufacture and sale of equipment involved in seismic data acquisition, such as recording and transmission equipment and vibrators for use in land seismic acquisition, and software development and sales.

Inter-company sales between such industry segments are made at prices approximating market prices and relate primarily to equipment sales made by the geophysical products segment to the geophysical services segment. These inter-segment sales, the related operating income recognized by the geophysical products segment, and the related effect on capital expenditures and depreciation expense of the geophysical services segment are eliminated in consolidation and presented in the column "Eliminations and Adjustments" in the tables which follow.

Operating income represents operating revenues and other operating income less expenses of the industry segment. It includes non-recurring and unusual items, which are disclosed in the operating segment if material. General corporate expenses, which include Group management, financing, and legal activities, have been included in the column "Eliminations and Adjustments" in the tables which follow. The Group does not disclose financial expenses or revenues by operating segment considering these items are not followed by the operating management and financing and investing are mainly managed at a corporate level.

Identifiable assets are those used in the operations of each industry segment and geographic zone. Unallocated and corporate assets consist primarily of financial assets, including cash and cash equivalents, and the Group's Corporate headquarters in Massy.

Net sales originating in France include export sales of approximately 179 million in 2002, 249 million in 2001 and 143.8 million in 2000.

In 2002, the Group's two most significant customers accounted for 7.6% and 7.1%, respectively, of the Group's consolidated revenues compared with 7.5% and 5.2% in 2001 and 8.3% and 8.0% in 2000.

**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****Analysis by operating segment**

2002	Geophysical services	Geophysical products	Eliminations and Adjustments	Consolidated Total
(in millions of euros)				
<b>Revenues from unaffiliated customers</b>	507.6	193.1		700.7
Inter-segment revenues	0.8	69.3	(70.1)	
<b>Operating revenues</b>	<b>508.4</b>	<b>262.4</b>	<b>(70.1)</b>	<b>700.7</b>
<b>Operating income (loss)</b>	<b>27.4(a)</b>	<b>51.2(a)</b>	<b>(17.0)<sup>(b)</sup></b>	<b>61.6</b>
Equity income (loss) of investees	7.4	(1.0)		6.4
Capital expenditures <sup>(c)</sup>	(261.0)	(11.3)	11.5	(260.8) <sup>(d)</sup>
Depreciation and amortization <sup>(c)</sup>	215.6	12.5	(6.3)	221.8
Corporate assets amortization			0.1	0.1
Investments in companies under equity method	(1.2)			(1.2)
<b>Identifiable assets</b>	<b>686.8</b>	<b>202.3</b>	<b>(21.9)</b>	<b>867.2</b>
Unallocated and corporate assets				157.5
<b>Total assets</b>				<b>1,024.7</b>

(a) includes non-recurring expenses and unusual assets allowances or write-downs respectively in geophysical services and geophysical products segments 8.6 million and (1.5) million

(b) includes general Corporate expenses of 13.2 million

(c) includes investments in and amortization of multi-client surveys for respectively 130.1 and 87.0 million

(d) includes equipment acquired under capital leases for 8.6 million

2001	Geophysical services	Geophysical products	Eliminations and Adjustments	Consolidated Total
(in millions of euros)				
<b>Revenues from unaffiliated customers</b>	511.5	291.4		802.9
Inter-segment revenues	2.0	29.8	(31.8)	
<b>Operating revenues</b>	<b>513.5</b>	<b>321.2</b>	<b>(31.8)</b>	<b>802.9</b>
<b>Operating income (loss)</b>	<b>0.5(a)</b>	<b>71.2(a)</b>	<b>(16.9)<sup>(b)</sup></b>	<b>54.8</b>
Equity income (loss) of investees	9.1	(0.3)		8.8
Capital expenditures <sup>(c)</sup>	(132.8)	(8.6)	7.6	(133.8) <sup>(d)</sup>

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Depreciation and amortization <sup>(c)</sup>	133.2	17.8	(5.3)	145.7
Corporate assets amortization			0.4	0.4
Investments in companies under equity method	(0.2)			(0.2)
	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
<b>Identifiable asset</b>	<b>677.0</b>	<b>272.5</b>	<b>(43.2)</b>	<b>906.3</b>
	<b>        </b>	<b>        </b>	<b>        </b>	<b>        </b>
Unallocated and corporate assets				108.1
				<u>        </u>
<b>Total assets</b>				<b>1,014.4</b>
				<b>        </b>

(a) includes in geophysical services and geophysical products segments non-recurring expenses and unusual assets allowances or write-downs for respectively 3.5 and 1.4 million

(b) includes general corporate expenses of 10.4 million

(c) includes investments in and amortization of multi-client surveys for respectively 78.8 and 69.7 million

(d) includes equipment acquired under capital leases for 13.2 million

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE**

2000	Geophysical services	Geophysical products	Eliminations and Adjustments	Consolidated Total
(in millions of euros)				
<b>Revenues from unaffiliated customers</b>	458.7	236.6		695.3
Inter-segment revenues	4.6	21.2	(25.8)	
<b>Operating revenues</b>	463.3	257.8	(25.8)	695.3
<b>Operating income (loss)</b>	(13.0) <sup>(a)</sup>	41.0 <sup>(a)</sup>	(9.1) <sup>(b)</sup>	18.8
Equity income (loss) of investees	2.0	0.6		2.6
Capital expenditures <sup>(c)</sup>	127.3	8.8	(4.1)	132.0 <sup>(d)</sup>
Depreciation and amortization <sup>(c)</sup>	131.2	16.9	(4.9)	143.2
Corporate assets amortization			0.4	0.4
Investments in companies under equity method				
<b>Identifiable assets</b>	486.6	285.7	(40.9)	731.4
Unallocated and corporate assets				107.9
<b>Total assets</b>				839.3

(a) includes in geophysical services and geophysical products segments non-recurring income and expenses and unusual assets allowances or write-downs for respectively 0.6 and 9.8 million

(b) includes general Corporate expenses of 7.6 million

(c) includes investments in and amortization of multi-client surveys for respectively 92.5 and 73.1 million

(d) includes equipment acquired under capital leases for 6.4 million

**Analysis by geographic zone***Analysis of operating revenues by location of customers*

	2002		2001		2000	
(in millions of euros)						
France	6.3	1%	10.5	1%	11.4	2%
Rest of Europe	110.2	16%	170.0	21%	93.7	13%
Asia and Australia	181.3	26%	215.0	27%	200.7	29%
Africa	113.9	16%	113.7	14%	126.7	18%
Americas	289.0	41%	293.7	37%	262.8	38%
<b>Consolidated total</b>	700.7	100%	802.9	100%	695.3	100%

*Analysis of operating revenues by origin*

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	2002		2001		2000	
	(in millions of euros)					
France	185.5	26%	259.6	33%	155.3	22%
Rest of Europe	66.4	9%	86.9	11%	54.2	8%
Asia and Australia	94.7	14%	107.0	13%	126.9	18%
Africa	90.0	13%	89.7	11%	105.3	15%
Americas	264.1	38%	259.7	32%	253.6	37%
<b>Consolidated total</b>	<b>700.7</b>	<b>100%</b>	<b>802.9</b>	<b>100%</b>	<b>695.3</b>	<b>100%</b>

Outside France, the U.S.A. in 2000, 2001 and 2002 are the single countries, which are deemed material with respectively 22.2%, 14.9% and 18% of consolidated revenues by origin.

**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE**

Due to the constant change in working locations the Group does not track its assets based on country of origin or ownership.

**NOTE 16 RESEARCH AND DEVELOPMENT**

	December 31		
	2002	2001	2000
	(in millions of euros)		
Research and development expenditures	30.0	38.9	30.5
Government grants recognized in income	(2.9)	(3.6)	(3.6)
<b>Research and development expenses, net</b>	<b>27.1</b>	<b>35.3</b>	<b>26.9</b>

Research and development expenditures relate primarily to:

for the geophysical services segment, projects concerning land seismic and data processing services,

for the products segment, projects concerning seismic data recording equipment.

**NOTE 17 OTHER REVENUES AND EXPENSES**

	December 31		
	2002	2001	2000
	(in millions of euros)		
Gains (losses) on partial sales of businesses	6.4	4.6	15.0
Assets write-downs	(62.0)		
Restructuring costs	(0.1)		(3.7)
Variation of reserves for restructuration	0.5	2.7	0.3
Other	62.3	(2.4)	(0.5)
<b>Non-recurring revenues (expenses) net</b>	<b>7.1</b>	<b>4.9</b>	<b>11.1</b>
Gains (losses) on sales of assets	(1.0)	8.8	2.4
<b>Other revenues (expenses) net</b>	<b>6.1</b>	<b>13.7</b>	<b>13.5</b>

**Year ended December 31, 2002**

Gains on partial sales businesses in 2002 include the sale in December of borehole seismic activity to Baker Atlas, a division of Baker Hughes Inc. and the sale of our Paradigm stock in August (see Note 2).

Assets write-downs are related to the shipwreck of our seismic vessel CGG Mistral and the geophysical equipment on board. In December 2002, our seismic vessel CGG Mistral sank after a fire broke out accidentally, offshore Trinidad. All onboard personnel were evacuated and were safe. The streamers, which were deployed for operations at the time as the fire broke out, were partially recovered. There was no material impact on the environment and no material impact on the 2002 results of operations due to the insurance indemnities to be received recorded in the item Other of Non-recurring revenues .

**Year ended December 31, 2001**

Gains on partial sales of businesses in 2001 included the sale of the positioning activity Osiris BV to Fugro NV. The price of sale was 7 million paid in cash. The transaction was subject to usual post-closing diligences and included price adjustment clauses.

The increase of Gains on sales of assets was mainly due to the sale to TGS of the non-exclusive survey Mississippi Canyon. The price was US\$6.9 million in cash with a six months differed settlement for US\$4.9 million, and the exchange of their rights in Atwater Valley non-exclusive survey.



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Gains on partial sales of businesses in 2000 principally included the sale to Paradigm Geophysical of Flagship SA and Flagship LLC, for approximately 12.2 million. The initial price of the transaction was U.S.\$14.5 million, out of which U.S.\$4 million was paid in cash.

Restructuring costs pertain primarily to a shutdown program of facilities located in Tulsa, Oklahoma, for 1.7 million and office reorganization at our headquarters in Massy for 1.2 million. This caption also includes a positive price adjustment of 2.3 million on the 1999 transaction with Fugro.

**NOTE 18 INCOME TAXES****Income tax**

Income tax expense consists of:

	<b>December 31</b>		
	<b>2002</b>	<b>2001</b>	<b>2000</b>
	<b>(in millions of euros)</b>		
France			
current income taxes	0.3	0.2	0.1
tax credits			
deferred taxes and other	0.9	(0.4)	0.2
Foreign countries			
current income taxes <sup>(a)</sup>	14.5	16.6	11.5
deferred taxes and other	1.7	0.4	(1.2)
<b>Total income tax expense</b>	<b>17.4</b>	<b>16.8</b>	<b>10.6</b>

(a) includes withholding taxes

The Company and its subsidiaries compute income taxes in accordance with the applicable tax rules and regulations of the numerous taxing authorities where the Group performs. The tax regimes and income tax rates legislated by these taxing authorities vary substantially. In foreign countries, income taxes are often accrued based on deemed profits calculated as a percentage of sales as defined by local government tax authorities.

In accordance with the provisions of French tax law, the Company elected on January 1, 1991 to file a consolidated tax return for French subsidiaries in which the Company holds an interest of more than 95% from the beginning of the relevant year. The Company does not obtain any French tax credit in respect of income taxes paid abroad.

The complexity of the various tax rules and regulations do not permit meaningful comparisons of the French and foreign components of income before taxes and the provisions for income taxes. In addition, due to the mobile nature of seismic acquisition activities, current relationships between the French and foreign components of such tax items are not reliable indicators of such relationships in future periods.

The difference between the French statutory tax rate of 34.3% in 2002, 35.3% in 2001, and 36.4% in 2000 and the Group's effective rate of income tax of 50% in 2002, 51.5% in 2001, (212.6)% in 2000 relates primarily to the effective rate of tax in these foreign jurisdictions and the potential future tax benefit of losses which have been provided for.

**Net operating loss carryforwards**

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In both France and foreign jurisdictions where income tax is not determined based on deemed profits calculated as a percentage of sales, the main significant temporary differences between financial and tax reporting relate to net operating loss carryforwards.

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Net operating loss carryforwards available in France and foreign jurisdictions amounts to 253.3 million, including 104.7 million of long term taxable capital losses available in France at December 31, 2002 and are currently scheduled to expire as follows:

	France	Foreign Jurisdictions
	(in millions of euros)	
2003	2.5	0.4
2004	15.5	0.7
2005	9.2	4.1
2006	1.7	0.9
2007		9.9
2008 and thereafter	80.4	65.0
Available indefinitely	27.0	36.0
	<hr/>	<hr/>
<b>Total</b>	<b>136.3</b>	<b>117.0</b>
	<hr/>	<hr/>

Net operating loss carryforwards in France include both losses available for carryforward to reduce future French income tax payable by the consolidated tax Group as well as losses dating prior to January 1, 1991 which are only available to reduce future income tax of the individual subsidiaries of the Group.

Since the majority of the Group's deferred tax assets represent tax losses available for carryforward by entities which have a recent history of generating losses, it has been deemed more likely than not that those entities will not be able to utilize the losses in the near future. Consequently, the Group has recorded valuation allowances to fully provide for the potential tax benefit of these items in those entities.

Tax losses carried forward non recorded as deferred tax asset mainly relate to CGG Marine tax losses prior the entry in the consolidated tax Group for an amount of Euros 17,3 millions with 12,7 millions are indefinitely available, Sercel Inc. tax losses for US\$15.9 millions available beyond 2008, and CGG Americas tax losses for an amount of US\$30.9 millions available beyond 2008. After taking into account the financial projections, the Group decided not to record any deferred tax asset.

**Deferred tax assets and liabilities**

Deferred tax assets and liabilities are as follows as December 31, 2002:

	Net
	(in millions of euros)
Deferred tax assets temporary differences	1,8
Deferred tax assets tax losses carried forward <sup>(a)</sup>	2,5
	<hr/>
Total Deferred tax assets	4,3
Total Deferred tax liabilities	(12,7)
	<hr/>
<b>Total deferred tax, net</b>	<b>(8,4)</b>
	<hr/>

(a) includes M 2,4 relating to loss carry forwards in United Kingdom

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As of December 31, 2002, the deferred fiscal situation in France resulting from temporary differences between consolidated and taxable results shows a deferred taxable basis of M 30, whereby no deferred tax asset was recorded.

### **Tax position and tax Audit**

Based upon discussions between the Group and French tax authorities, a risk currently exists concerning the interpretation of tax regulations by the French tax administration, which could result in a reduction in the amount

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of net operating loss carryforwards reported above. The Group is unable to quantify the amount, if any, of such carryforwards that might be disallowed, although such amounts could be significant.

On July 29, 2002, the Company received a verification notice from the French taxation authorities requesting documentation with respect to corporate tax and value added tax. The corporate tax audit covers the 1991 through 2001 fiscal years, as required by French law for use of net operating loss carry forwards. The audit tax procedure is in progress.

Undistributed earnings of subsidiaries and the Group's share of undistributed earnings of companies accounted for using the equity method amount to 181.0 million, 191.6 million and 86.2 million at December 31, 2002, 2001 and 2000 respectively. No provision for French taxes on these earnings has been provided which the Group considers to be indefinitely reinvested or which would not be taxed when remitted.

**NOTE 19 PERSONNEL**

The analysis of personnel is as follows:

	Year ended December 31,		
	2002	2001	2000
	(in millions of euros)		
Personnel employed under French contracts			
Geophysical services	910	943	951
Products	562	547	534
Personnel employed under local contracts	1,968	2,003	1,800
<b>Total</b>	<b>3,440</b>	<b>3,493</b>	<b>3,285</b>
Including field staff of:	749	782	756

The total cost of personnel employed by consolidated subsidiaries amounted to 221.8 million in 2002, 240.4 million in 2001 and 224.4 million in 2000.

**NOTE 20 DIRECTOR'S REMUNERATION**

In 2002, director's remuneration amounted to Euros 2,731,761.

Director's remuneration paid by the Group covers all gross remuneration and attendance fees paid to members of the Management Committee and Directors.

**NOTE 21 RELATED PARTY TRANSACTIONS****Operating transactions**

The Group manufactures equipment and provides geophysical services to oil and gas exploration and production subsidiaries of TotalFinaElf S.A. pursuant to contracts entered into at an arm's-length basis. TotalFinaElf S.A. holds controlling interests in Total Chimie, one of the major shareholders of the Company during the periods presented.

Operating sales to TotalFinaElf amounted to 40 million in 2002, 59.9 million in 2001 and 55.5 million in 2000. As of December 31, 2002, TotalFinaElf owed 9.2 million to the Group.

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Louis Dreyfus Armateurs ( LDA ) provides ship management services for a portion of our fleet. Charter parties associated with these services are concluded at arm's length. Debt to LDA was 1.5 million as of December 31, 2002. Total net charges paid throughout the year for the providing of ship management services amounted to 9.4 million, and the future commitments for such services to LDA were 9.3 million.

LDA is an owner, together with the Group, of a company accounted for using the equity method by the Group, Geomar, owner of the CGG Alizé seismic ship. LDA has a 51% stake in Geomar, and amounts paid to

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Geomar by the Group during the year were 11.2 million, while future charterparty amounts due to Geomar amounted to 44.4 million. Debt to Geomar was 1.9 million at December 31, 2002.

The sales of geophysical products from Sercel to Argas, owned by the Group up to 49%, in 2001 amounted to 4.9 million, representing 0.7% of the Group revenues.

**Financing**

No credit facility or loan was granted to the Company by shareholders during the three periods presented.

**NOTE 22 SUPPLEMENTARY CASH FLOW INFORMATION**

Cash paid for income taxes and interest was as follows:

	Year ended December 31,		
	2002	2001	2000
	(in millions of euros)		
Interest	31.1	27.6	17.3
Income taxes	19.4	10.8	9.6

Non-cash investing and financing transactions that are excluded from the consolidated statements of cash flows consist of the following:

	Year ended December 31,		
	2002	2001	2000
	(in millions of euros)		
Equipment acquired under capital leases	8.6	13.2	6.4

**NOTE 23 ASSET VALUATION ALLOWANCES**

Details of valuation allowances recorded against assets are as follows:

	Year ended December 31, 2002			Balance at end of year
	Balance at beginning of year	Additions/ Deductions charged to income	Other <sup>(a)</sup>	
	(in millions of euros)			
Trade accounts and notes receivable	7.0	0.2	(0.2)	7.0
Inventories and work-in-progress	35.0	(1.3)	(3.3)	30.4
Other current assets	0.5	(0.4)		0.1
Loans receivable and other investments	0.9	4.0		4.9

(a) includes the effects of exchange rate changes and acquisitions and divestitures

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Year ended December 31, 2001

	<b>Balance at beginning of year</b>	<b>Additions/ Deductions charged to income</b>	<b>Other<sup>(a)</sup></b>	<b>Balance at end of year</b>
	(in millions of euros)			
Trade accounts and notes receivable	5.4	1.6		7.0
Inventories and work-in-progress	26.4	7.7	0.9	35.0
Other current assets	0.3	0.2		0.5
Loans receivable and other investments	0.9			0.9

(a) includes the effects of exchange rate changes and acquisitions and divestitures

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Year ended December 31, 2000

	Balance at beginning of year	Additions/ Deductions charged to income	Other <sup>(a)</sup>	Balance at end of year
(in millions of euros)				
Trade accounts and notes receivable	11.4	(3.1)	(2.9)	5.4
Inventories and work-in-progress	15.9	5.7	4.8	26.4
Other current assets	0.1	0.1	0.1	0.3
Loans receivable and other investments	1.1	(0.3)	0.1	0.9

(a) includes the effects of exchange rate changes and acquisitions and divestitures

**NOTE 24 PROVISIONS FOR LIABILITIES AND CHARGES**

Detail of provisions for liabilities and charges is as follows:

Year ended December 31, 2002

	Balance at beginning of year	Additions	Deductions (used)	Deductions (unused)	Other <sup>(a)</sup>	Balance at end of year
(in millions of euros)						
Provisions for restructuration costs	0.8	0.2	(0.7)		0.5	0.8
Provisions for contract losses	0.1	2.8	(0.1)		(0.4)	2.4
Provisions for litigation	2.1	2.4	(1.4)		(0.1)	3.0
Other provisions	4.7	5.2	(3.3)		(0.7)	5.9
<b>Total short-term provisions</b>	<b>7.7</b>	<b>10.6</b>	<b>(5.5)</b>		<b>(0.7)</b>	<b>12.1</b>
Retirement indemnity provisions	8.5	1.5	(0.3)		0.5	10.2
Customers Guarantee provisions	3.3	3.3	(3.1)		(0.2)	3.3
Other provisions	0.8	0.8	(0.5)		0.7	1.8
<b>Total long-term provisions</b>	<b>12.6</b>	<b>5.6</b>	<b>(3.9)</b>		<b>1.0</b>	<b>15.3</b>
<b>Total provisions</b>	<b>20.3</b>	<b>16.2</b>	<b>(9.4)</b>		<b>0.3</b>	<b>27.4</b>

(a) includes the effects of exchange rate changes and acquisitions and divestitures

Other short-term provisions include:

provisions for charges of M 1.6 related to the shipwreck of the seismic vessel « CGG Mistral »,

provisions for charges of M 1.1 related to the sale of our borehole seismic activity,

provisions for various operational risks of M 2.3.



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Certain dormant or insignificant subsidiaries of the Group have not been included in the list below.

<b>Siren Number<sup>(a)</sup></b>	<b>Consolidated companies</b>	<b>Head Office</b>	<b>% of interest</b>
403 256 944	CGG Marine SAS	Massy, France	100.0
351 834 288	Geocal SARL	Massy, France	100.0
966 228 363	Geoco SAS	Paris, France	100.0
378 040 497	Sercel SA	Carquefou, France	100.0
410 072 110	CGG Explo SARL	Massy, France	100.0
866 800 154	Sercel Holding SA	Carquefou, France	100.0
	AFOS, Ltd.	Feltham, United Kingdom	100.0
	CGG Americas, Inc.	Houston, United States	100.0
	CGG AP <sup>(b)</sup>	Kuala Lumpur, Malaysia	100.0
	CGG do Brasil Participações Ltda	Rio do Janeiro, Brazil	100.0
	CGG Canada Services Ltd.	Calgary, Canada	100.0
	CGGI SA	Geneva, Switzerland	100.0
	CGG (Nigeria) Ltd.	Lagos, Nigeria	100.0
	CGG Marine Norge A/S	Stavanger, Norway	100.0
	CGG Marine Resources Norge A/S	Hovik, Norway,	100.0
	CGG Offshore UK Ltd.	United Kingdom	100.0
	CGG Pan India Ltd. <sup>(c)</sup>	New Delhi, India	40.0
	CGG Selva	Lima, Peru	100.0
	Compania General de Geofisica SA	Madrid, Spain	100.0
	Compania Mexicana de Geofisica	Mexico City, Mexico	100.0
	Companhia de Geologia e Geofisica Portuguesa	Lisbon, Portugal	100.0
	Exgeo CA	Caracas, Venezuela	100.0
	Geophysics Overseas Corporation Ltd.	Nassau, Bahamas	100.0
	CGG Australia Services Pty Ltd.	Sydney , Australia	100.0
	Kantwell Overseas Shipping Co. <sup>(d)</sup>	Panama City, Panama	50.0
	Marine Geophysics Investment Ltd.	London, United Kingdom	100.0
	Osiris BV	Heemstede, Netherlands	100.0
	Petroleum Exploration Computer Consultants Ltd.	Forest Row, United Kingdom	100.0
	PT Alico	Jakarta, Indonesia	100.0
	Sercel Inc.	Tulsa, United States	100.0
	Subsea Seismic Company of Norway A/S	Trondheim, Norway	100.0
	Sercel Singapore Pte Ltd.	Singapore, Singapore	100.0
	Sercel England Ltd.	Somercotes, United Kingdom	100.0
	Sercel Canada Ltd.	Calgary, Canada	100.0

(a) Siren number is an individual identification number for company registration purposes under French law

(b) The Group consolidates its investment since a shareholder agreement effectively provides the Group with the operating control of the company

(c) The Group consolidates its investment in Pan India Ltd (40%) since a shareholder agreement effectively provides the Group with the operating control of the company (the Chairman of the Board is nominated by the Group).

(d) Consolidated due to additional contractual rights gained by the Group given the asset operational management.



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<b>Siren number<sup>(a)</sup></b>	<b>Accounted for using the equity method</b>	<b>Head Office</b>	<b>% of interest</b>
413 926 320	Geomar SAS	Paris, France	49.0
	Argas Ltd	Al-Khobar, Saudi Arabia	49.0
	JV Xian Peic/Sercel Limited	Xian, China	40.0
	Zhong Hai Syntron Geophysical Cable Company Ltd	Tanggu, China	50.0

**NOTE 26 SUBSEQUENT EVENTS****Incorporation of a joint venture with Baker Hughes**

As part of the agreement concluded with Baker Hughes on December 27, 2002, a joint venture was incorporated in February 2003, in which CGG owns 49% and Baker Hughes 51%.

**Insurance indemnity received for the vessel « CGG Mistral »**

In January and February 2003, US\$ 42 millions was paid by the insurance company as indemnity for the loss of the seismic vessel CGG Mistral, given that this indemnity was recorded as other revenues to be received at December 31, 2002. The indemnity procedure for the equipment on board is in progress.

**NOTE 27 US GAAP RECONCILIATION****A SUMMARY OF DIFFERENCES BETWEEN ACCOUNTING PRINCIPLES FOLLOWED BY THE GROUP AND U.S. GAAP**

The accompanying Consolidated Financial Statements have been prepared in accordance with the accounting principles described in Note 1 above ( French GAAP ), which differ in certain significant respects from U.S. GAAP. These differences relate mainly to the following items, and the necessary adjustments are shown in the tables in section B.

**Derivative instruments and hedging activity**

Under French GAAP, as described in Note 13 of our consolidated financial statements, derivative instruments used as hedges are not recognized in the balance sheet and hedging gains and losses are recorded in the same period as the income or loss on the hedge transactions.

Under U.S. GAAP beginning January 1, 2001 with the adoption of SFAS No. 133, ( Accounting for Derivative Instrument and Hedging Activities ) all derivative instruments are recorded in the balance sheet at fair value. Specifically,

hedge accounting may only be applied to hedges meeting strict criteria and SFAS No. 133 defines new requirement for designation and documentation of hedging relationships as well as ongoing effectiveness assessments in order to use hedge accounting;

for derivatives qualifying as hedges of future cash flows, the effective portion of changes in fair value is recorded temporarily in equity (Other Comprehensive Income), then recognized in earnings along with the related effects of the hedged items. Any ineffective portion of hedges is reported in earnings as it occurs;

for derivatives qualifying as fair value hedges, changes in fair value of both the derivative and the hedged item are recognized in earnings;

for embedded derivatives in long-term contracts in foreign currencies (primarily U.S. dollar), revenue and expenses with a non-U.S. client or supplier are recognized at the forward exchange rate negotiated at the beginning of the contract. The variation of fair market value of the embedded derivative foreign exchange contracts is recognized in earnings;

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if hedge accounting is not applied, changes in the fair value of derivative instruments are recorded in earnings.

**Goodwill amortization and impairment**

Under French GAAP, goodwill is amortized on a straight-line basis over its estimated useful life.

Under U.S. GAAP, before 31 December 2001, no difference was reported for goodwill accounting. Since 1st January 2002, however, goodwill is no longer amortized but remains at its carrying value as of December 31, 2001. Under the provisions of SFAS 142 Goodwill and Other Intangible Assets, goodwill is tested for impairment at least annually. Differences could also occur in the determination of the charge of impairment of goodwill under French GAAP and U.S GAAP, no such difference was reported for the year 2002. See section New Accounting Pronouncements for a discussion of the first implementation of SFAS 142 and related disclosures.

**Impairment of long-lived assets**

Under French GAAP, long-lived assets are written down when, as a result of events or changes in circumstances within the year, their recoverable value appears to have declined on an other than temporary basis to an amount less than their carrying value. Impairment is determined for each group of autonomous assets (independent operating units or subsidiaries) by comparing their carrying value with the undiscounted cash flows that they are expected to generate based upon management's expectations of future economic and operating conditions.

Should the above comparison indicate that an asset is impaired, the write-down recognized is equivalent to the difference between carrying value and either market value or the sum of discounted future cash flows.

Under U.S GAAP and starting on 1st January 2002, the date of adoption of SFAS 144 Accounting for the Impairment or Disposal of Long-lived Assets, the method described above is relevant only for long-lived assets to be held and used, while assets to be disposed of by sale should be reported as selling price less costs to sale.

No such difference was reported for the year 2002.

**Available-for-sale securities**

Under French GAAP, investment in equity securities are recorded at acquisition cost and an allowance is provided if management deems that there has been an other-than-temporary decline in fair value. Unrealized gains and temporary unrealized losses are not recognized. For equity securities, the allowance is evaluated based on the average of the market price in the last 30 days.

Under US GAAP, investments in equity securities are classified into two categories and accounted as follows: Equity securities that are acquired and held principally for the purpose of sale in the near term are classified as trading securities and are reported at fair value, with unrealized gains and losses included in earnings. All other equity securities are classified in available for sale securities and reported at fair value, with unrealized gains and temporary losses excluded from earnings and reported in shareholder's equity. In case of other-than-temporary loss in fair value, an allowance is recorded in earnings. Such allowance is evaluated based on the market price at the closing rate.

**Stock-based compensation**

Under French GAAP, no compensation cost is recognized for stock options.

For U.S. GAAP purposes, the stock-based compensation plans qualify as fixed plans under U.S. GAAP, compensation cost is recorded under APB25 equal to the excess, if any, of the market price over the exercise price of the underlying shares at the date of grant.

The differences are not material for all periods presented.

**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****Comprehensive income**

Comprehensive income includes all changes in equity during a period except those resulting from investments by owners and distributions to owners. In the consolidated financial statements, the concept of comprehensive income does not exist because French accounting principles do not authorize any change in equity corresponding to this definition other than net income and changes in the cumulative translation adjustment related to foreign subsidiaries.

In U.S. GAAP financial statements, comprehensive income and its components must be displayed in a statement of comprehensive income.

For the Group, this statements includes, in addition to net income:

changes in the cumulative translation adjustment related to consolidated foreign subsidiaries,

changes in the fair value of derivative instruments designed as cash flow hedges meeting the criteria established by SFAS 133,

changes in the amount of the additional minimum pension liability due to actuarial losses.

**Presentation of Consolidated Statements of operations**

Under French GAAP, certain expenses, such as Goodwill amortization , are recorded below Operating income in the Consolidated Statements of operations.

Under U.S. GAAP, these expenses would be classified as operating expenses/revenues.

**B RECONCILIATION OF NET INCOME AND SHAREHOLDERS EQUITY TO U.S. GAAP AND CONDENSED U.S. GAAP STATEMENT OF OPERATIONS AND BALANCE SHEET****Net income (loss)**

	December 31		
	2002	2001	2000
	(in millions of euros)		
Net Income (loss) as reported in the Consolidated Statements of operations	17.4	15.7	(12.0)
Goodwill amortization	6.3		
Available-for-sale securities	(0.5)		
Derivative instruments and hedging activities	(8.1)	(6.4)	
<b>Net income (loss) according to U.S. GAAP</b>	<b>15.1</b>	<b>9.3</b>	<b>(12.0)</b>

**Shareholder s equity**

	December 31		
	2002	2001	2000

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	(in millions of euros)		
Shareholder s equity as reported in the Consolidated Balance Sheets	437.5	462.8	320.7
Cumulative effect adjustment	(6.4)		
Goodwill amortization	6.3		
Available-for-sale securities	(0.5)		
Derivative instruments and hedging activities	(8.1)	(6.4)	
Other comprehensive income	2.2		
	—	—	—
<b>Shareholder s equity according to U.S. GAAP</b>	<b>431.0</b>	<b>456.4</b>	<b>320.7</b>
	—	—	—

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****CONDENSED U.S. GAAP STATEMENTS OF OPERATIONS AND BALANCE SHEET****Condensed U.S. GAAP Statements of Operations**

	December 31		
	2002	2001	2000
	(amounts in millions of euros, except per share data)		
<b>Operating revenues</b>	719.0	795.0	695.3
Cost of operations	(528.6)	(633.5)	(579.9)
<b>Gross profit(a)</b>	<u>190.4</u>	<u>161.5</u>	<u>115.4</u>
Research and development expenses net	(27.1)	(35.3)	(26.9)
Selling, general and administrative expenses	(86.7)	(91.3)	(87.9)
Other revenues (expenses) net	5.3	13.7	13.5
<b>Operating income (loss)</b>	<u>81.9</u>	<u>48.6</u>	<u>14.1</u>
Interest and other financial income and expense net	(33.1)	(23.0)	(15.9)
Exchange gains (losses) net	(25.4)	(8.1)	(5.8)
Equity in income (losses) of affiliates	7.2	8.8	2.6
<b>Income (loss) before income taxes and Minority interest</b>	<u>30.6</u>	<u>26.3</u>	<u>(5.0)</u>
Income taxes	(13.3)	(16.8)	(10.6)
Minority interest	(2.2)	(0.2)	3.6
<b>Net income (loss)</b>	<u>15.1</u>	<u>9.3</u>	<u>(12.0)</u>
Weighted average number of shares outstanding	11,680,718	11,609,393	9,389,214
Dilutive potential shares from stock-options	—	33,321	95,839
Adjusted weighted average shares and assumed option exercises	<u>11,680,718</u>	<u>11,642,714</u>	<u>9,485,053</u>
<b>Net income (loss) per share</b>			
Basic	1.29	0.80	(1.28)
Diluted	<u>1.29</u>	<u>0.80</u>	<u>(1.28)</u>

(a)	by segment			
	Geophysical services	98.9	46.4	38.2
	Products	96.0	122.5	80.8
	Eliminations & Adjustments	(4.5)	(7.4)	(3.6)
	<b>Gross profit</b>	<u>190.4</u>	<u>161.5</u>	<u>115.4</u>

- (b) including interest expenses for 32 million, 27 million and 17 million as of December 31, 2002, 2001 and 2000 respectively.

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE****Condensed consolidated U.S. GAAP Balance Sheet**

	December 31		
	2002	2001	2000
(amounts in millions of euros)			
<b>ASSETS</b>			
Current assets	511.3	472.5	467.2
Long-term assets	525.5	535.5	372.1
<b>Total Assets</b>	<b>1,036.8</b>	<b>1,008.0</b>	<b>839.3</b>
<b>LIABILITIES AND SHAREHOLDERS EQUITY</b>			
Total current liabilities	305.2	261.0	260.3
Total long-term liabilities	290.3	280.7	258.3
Minority interest	10.3	9.9	
Total shareholders equity	431.0	456.4	320.7
<b>Total liabilities and shareholders equity</b>	<b>1,036.8</b>	<b>1,008.0</b>	<b>839.3</b>

**Statement of Comprehensive Income**

	December 31		
	2002	2001	2000
(amounts in millions of euros)			
Net income (loss) according to U.S. GAAP	15.1	9.3	(12.0)
Other comprehensive income (loss):			
Changes in the cumulative translation adjustment	(42.7)	15.0	6.6
Changes in the fair value of derivative instruments	2.2	(0.1)	
<b>Comprehensive income according to U.S. GAAP</b>	<b>(25.4)</b>	<b>24.2</b>	<b>(5.4)</b>

**C ADDITIONAL U.S. GAAP DISCLOSURE****C1 New accounting pronouncements applied in 2002****Application of SFAS 141 Business Combinations and SFAS 142 Goodwill and Other Intangible Assets**

SFAS 141 requires that all business combinations initiated after June 30, 2001 be accounted for as purchases. SFAS 142 requires that goodwill and intangible assets with indefinite useful lives acquired after June 30, 2001 should not be amortized. The Group has accounted for business combinations according to SFAS 141 and SFAS 142. During 2002, the Group has not undertaken any significant acquisitions.

*Application of the new accounting pronouncements during the transition period*

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The review of intangible assets and goodwill existing on January 1, 2002 with regard to the changes in accounting method has not driven the Group to identify any new intangible asset.

The application of the different criteria to determine the reporting units has lead the Group to define four reporting units: Products, Offshore, Land and Processing & Reservoir. As part of the first step of the impairment testing, these units were valued according to the discounted cash method. This has enabled the comparison of their estimated fair value to their carrying value. The fair values of the different reporting units are over their carrying value. The evaluation of the reporting units was performed using cash flow projections and a discount rate equivalent to the weighted average cost of the capital employed of each reporting unit.

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**Table of Contents****COMPAGNIE GENERALE DE GEOPHYSIQUE**

After completion of the second stage of the impairment tests, no impairment was recorded as of January 1, 2002.

*Impairment testing during 2002 for intangible assets with an indefinite useful life and goodwill*

The Group has actualized at the end of 2002 those evaluations undertaken during the transition period. The impairment tests, which were performed, did not lead to any additional impairment charge.

A reconciliation of reported net income and net income per share for prior periods to exclude amortization of goodwill and indefinite-lived intangible assets follows:

	December 31		
	2002	2001	2000
	(in millions of euros except per share data)		
Reported U.S. GAAP net income (loss)	15.1	9.3	(12.0)
Goodwill amortization	—	6.5	4.7
<b>Pro forma net income (loss)</b>	<b>15.1</b>	<b>15.8</b>	<b>(7.3)</b>
Pro forma net income (loss) per share			
Basic	1.29	1.36	(0.78)
Diluted	1.29	1.36	(0.77)

**C2 Stock option plans**

The fair value for these options was estimated at the date of grant using a Black-Scholes option pricing model with the following average assumptions for the options granted in 2002, 2001, 2000, and 1997, respectively: risk-free interest rates of 3.3%, 4.87%, 5.77%, and 4.1%; dividend yields of 0% in all years; volatility factors of the expected market price of the Company's ordinary shares of 0.429, 0.436, 0.528, and 0.43; and an expected life of the options ranging from 1 to 8 years.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the options' vesting period. The Company's pro forma information follows:

	December 31		
	2002	2001	2000
	(in millions of euros except for income (loss) per share information)		
Pro forma U.S. GAAP net income (loss)	10.6	5.3	(14.5)
Pro forma U.S. GAAP net income (loss) per share	0.91	0.45	(1.55)

The weighted-average fair value of options granted during 2002, 2001, and 1997 was as follows:

2002	2001	2000	1997
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Options whose price was lower than the market price of the underlying shares on the grant date	43.47	34.32	39.97
Options whose price equaled the market price of the underlying shares on the grant date			
Options whose price was greater than the market price of the underlying shares on the grant date		37.42	
	_____	_____	_____

The weighted average remaining contractual life of those options is 5.7 years, as of December 31, 2002.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

**C3 Derivative financial instruments**

**Fair Value Hedge and Cash Flow Hedge**

The hedge's ineffectiveness of cash-flow hedges for the year 2002 and 2001 amounted to (12) million and (6) million and is reported in the Exchange gains (losses), net line item of the condensed statements of operations.

**Hedge of the net investment in a foreign operation**

A portion of the amount of our outstanding bond denominated in U.S. dollar has been designated as a hedge of the investment in U.S. dollar. The net amount of gains that has been included in the cumulative translation adjustment during the year 2002 is 15 millions of euros.

**C4 Recently issued accounting pronouncements**

In June 2001, the Financial Accounting Standards Board (FASB) issued SFAS No. 143 Accounting for Asset Retirement Obligations which becomes effective in January 2003. This statement addresses accounting and reporting for obligations and costs, which will occur when the long-term assets are retired. Among other things, the statement requires that the present value of the liability associated with future asset retirements be recorded on the balance sheet when an obligation has been incurred and when it can be reasonably measured. The amortization of the capitalized costs and increase in the present value of the obligation which result from the passage of time, are charged to earnings. During 2002, the Group has carried out an inventory of all sites or assets concerned but has not determined the financial impact on its 2003 consolidated financial statements.

In July 2002, the FASB issued Statement of Financial Accounting Standards No. 146, Accounting for Costs Associated with Exit or Disposal Activities ( SFAS 146 ). SFAS 146 replaces EITF Issue No. 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring), and changes the timing of recognition for certain exit costs associated with restructuring activities. Under SFAS 146 certain exit costs would be recognized over the period in which the restructuring activities occur. Currently, exit costs are recognized when the Company commits to a restructuring plan. SFAS 146 is to be applied prospectively to exit or disposal activities initiated after December 31, 2002, though early adoption is allowed. The Company will adopt SFAS 146 for exit or disposal activities that are initiated after January 1, 2003. The provisions of SFAS 146 could result in the Company recognizing the cost of future restructuring activities over a period of time as opposed to as a one-time expense.

In December 2002, the Financial Accounting Standards Board issued FASB Statement No. 148, Accounting for Stock-Based Compensation Transition and Disclosure ( SFAS 148 ). This Statement amends FASB Statement No. 123, Accounting for Stock-Based Compensation ( SFAS 123 ), to provide alternative methods of transition to SFAS 123's fair value method of accounting for stock-based employee compensation. It also amends the disclosure provisions of SFAS 123 to require prominent disclosure in the summary of significant account policies of the effects of an entity's accounting policy with respect to stock-based employee compensation on reported net income and earnings per share in annual financial statements. SFAS 148's amendment of the transition and annual disclosure requirements are effective for fiscal years ending after December 15, 2002. Refer to Note 12 for disclosures related to stock based compensation. The Company intends to continue to account for stock-based compensation based on the provisions of APB Opinion No. 25.

In November 2002, the FASB issued FASB Interpretation No. 45, Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others ( FIN 45 ). FIN 45 requires that upon issuance of a guarantee, the guarantor must recognize a liability for the fair value of the obligation it assumes under that guarantee. The disclosure provisions of FIN 45 are effective for financial statements of annual periods that end after December 15, 2002. The provisions for initial recognition and measurement are effective on a prospective basis for guarantees that are issued or modified after December 31, 2002. The Group is currently assessing the impacts of FIN 45 on its financial statements.

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**COMPAGNIE GENERALE DE GEOPHYSIQUE**

In January 2003, the FASB issued FASB Interpretation No. 46, Consolidation of Variable Interest Entities an interpretation of ARB No. 51 ( FIN 46 ). FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The disclosure provisions of FIN 46 are effective for financial statements initially issued after January 31, 2003. Public entities with a variable interest in a variable interest entity created before February 1, 2003 shall apply the consolidation requirements of FIN 46 to that entity no later than the beginning of the first annual reporting period beginning after June 15, 2003. FIN 46 is effective for all new variable interest entities created or acquired after January 31, 2003. The Group is currently assessing the impacts of FIN 46 on its financial statements.



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# Arabian Geophysical & Surveying Company

(A Saudi Arabian Limited Liability Company)

## FINANCIAL STATEMENTS

31 DECEMBER 2002

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**

**(A Saudi Arabian Limited Liability Company)**

**AUDITORS REPORT TO THE SHAREHOLDERS AND DIRECTORS OF**

**ARABIAN GEOPHYSICAL & SURVEYING COMPANY LIMITED**

We have audited the accompanying balance sheet of Arabian Geophysical & Surveying Company, a Saudi Arabian Limited Liability Company, expressed in Saudi Riyals, as of 31 December 2002 and 2001 and the related statements of income, cash flows and changes in equity for the years then ended. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Arabian Geophysical & Surveying Company, a Saudi Arabian Limited Liability Company as of 31 December 2002 and 2001 and the results of its operations and its cash flows for the years then ended in conformity with accounting standards generally accepted in the Kingdom of Saudi Arabia.

Accounting standards generally accepted in the Kingdom of Saudi Arabia vary in certain significant respects from accounting principles generally accepted in the United States. A description of the significant differences and a reconciliation of net income for the year ended 31 December 2002 and shareholders' equity as of 31 December 2002 to accounting principles generally accepted in the United States are set forth in Note 20 to the accompanying financial statements.

Ernst & Young

Certified Public Accountants

Alkhobar, Saudi Arabia

17 April 2003

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**Table of Contents****ARABIAN GEOPHYSICAL & SURVEYING COMPANY**

(A Saudi Arabian Limited Liability Company)

**BALANCE SHEET**

	Note	As at 31 December		
		2002	2001	2000
		SR	SR	SR
<b>ASSETS EMPLOYED</b>				
<b>PROPERTY, PLANT AND EQUIPMENT</b>	3	232,465,525	284,138,896	176,264,681
<b>CURRENT ASSETS</b>				
Inventories	4	6,309,357	6,034,660	5,558,818
Accounts receivable and prepayments	5	117,498,199	102,267,299	64,887,389
Bank balances and cash		49,625,386	7,967,441	459,020
		<u>173,432,942</u>	<u>116,269,400</u>	<u>70,905,227</u>
<b>CURRENT LIABILITIES</b>				
Accounts payable and accruals	6	12,723,351	50,345,997	32,758,247
Bank borrowings	8	86,950,000	73,566,667	59,145,773
Zakat and income tax	9	11,422,566	10,685,082	3,113,465
		<u>111,095,917</u>	<u>134,597,746</u>	<u>95,017,485</u>
<b>NET CURRENT ASSETS/(LIABILITIES)</b>		<u>62,337,025</u>	<u>(18,328,346)</u>	<u>(24,112,258)</u>
		<u>294,802,550</u>	<u>265,810,550</u>	<u>152,152,423</u>
<b>FUNDS EMPLOYED</b>				
<b>PARTNERS EQUITY</b>				
Capital	10	36,000,000	36,000,000	36,000,000
Statutory reserve	11	18,000,000	15,947,837	9,381,833
General reserve	12	4,646,910	4,646,910	4,646,910
Capital reserve	13	7,820,117	8,309,854	6,270,805
Reserve for employees training	14	3,000,000	3,000,000	1,688,156
Retained earnings		126,432,709	78,382,853	28,513,218
		<u>195,899,736</u>	<u>146,287,454</u>	<u>86,500,922</u>
<b>NON CURRENT LIABILITIES</b>				
Term loans	8	90,466,667	113,250,000	60,916,667
Employees terminal benefits		8,436,147	6,273,096	4,734,834
		<u>98,902,814</u>	<u>119,523,096</u>	<u>65,651,501</u>
		<u>294,802,550</u>	<u>265,810,550</u>	<u>152,152,423</u>

The attached notes 1 to 20 form part of these financial statements.



**Table of Contents****ARABIAN GEOPHYSICAL & SURVEYING COMPANY**

(A Saudi Arabian Limited Liability Company)

**STATEMENT OF INCOME**

	Note	Year ended 31 December		
		2002	2001	2000
		SR	SR	SR
Contract revenue		305,330,088	271,881,407	176,583,068
Operating costs		223,548,272	195,547,717	146,437,660
<b>GROSS PROFIT</b>		<b>81,781,816</b>	<b>76,333,690</b>	<b>30,145,408</b>
General and administration expenses	15	5,199,594	4,820,811	3,742,629
<b>INCOME FROM MAIN OPERATIONS</b>		<b>76,582,222</b>	<b>71,512,879</b>	<b>26,402,779</b>
Other income	16	648,734	2,547,271	189,445
Other expenses	17	(865,123)		(185,121)
Financial charges		(6,692,771)	(8,400,108)	(7,426,400)
<b>NET INCOME FOR THE YEAR</b>		<b>69,673,062</b>	<b>65,660,042</b>	<b>18,980,703</b>

The attached notes 1 to 20 form part of these financial statements.

**Table of Contents****ARABIAN GEOPHYSICAL & SURVEYING COMPANY**

(A Saudi Arabian Limited Liability Company)

**STATEMENT OF CASH FLOWS**

	Note	Year ended 31 December		
		2002	2001	2000
		SR	SR	SR
<b>OPERATING ACTIVITIES</b>				
Net income for the year		69,673,062	65,660,042	18,980,703
Adjustments for:				
Depreciation		79,463,888	69,023,099	49,744,152
Loss/(Profit) on disposal of plant and equipment		489,737	(2,039,049)	185,121
		<u>149,626,687</u>	<u>132,644,092</u>	<u>68,909,976</u>
Changes in operating assets and liabilities				
Inventories		(274,697)	(475,842)	(1,438,262)
Receivables		(15,230,900)	(37,379,910)	(31,714,847)
Payables		(36,885,162)	25,159,367	23,625,321
		<u>97,235,928</u>	<u>119,947,707</u>	<u>59,382,188</u>
Cash from operations		97,235,928	119,947,707	59,382,188
Employees terminal benefits, net		2,163,051	1,538,262	947,095
		<u>99,398,979</u>	<u>121,485,969</u>	<u>60,329,283</u>
Net cash from operating activities		<u>99,398,979</u>	<u>121,485,969</u>	<u>60,329,283</u>
<b>INVESTING ACTIVITIES</b>				
Purchase of plant and equipment		(36,353,925)	(177,120,697)	(131,358,681)
Proceeds from sale of plant and equipment		8,073,671	2,262,432	69,000
		<u>(28,280,254)</u>	<u>(174,858,265)</u>	<u>(131,289,681)</u>
Net cash used in investing activities		<u>(28,280,254)</u>	<u>(174,858,265)</u>	<u>(131,289,681)</u>
<b>FINANCING ACTIVITIES</b>				
Bank borrowings, net	8	(9,400,000)	66,754,227	65,274,940
Dividends paid		(20,060,780)	(5,873,510)	
		<u>(29,460,780)</u>	<u>60,880,717</u>	<u>65,274,940</u>
Net cash (used in)/from financing activities		<u>(29,460,780)</u>	<u>60,880,717</u>	<u>65,274,940</u>
<b>INCREASE/(DECREASE) IN CASH</b>				
Cash at the beginning of the year		41,657,945	7,508,421	(5,685,458)
		<u>7,967,411</u>	<u>459,020</u>	<u>6,144,478</u>
<b>CASH AT THE END OF THE YEAR</b>		<u><u>49,625,386</u></u>	<u><u>7,967,441</u></u>	<u><u>459,020</u></u>

The attached notes 1 to 20 form part of these financial statements.

**Table of Contents****ARABIAN GEOPHYSICAL & SURVEYING COMPANY**

(A Saudi Arabian Limited Liability Company)

**STATEMENT OF CHANGES IN EQUITY**

Year Ended 31 December 2002

	Capital	Statutory reserve	General reserve	Capital reserve	Reserve for employees training	Retained earnings	Total
	SR	SR	SR	SR	SR	SR	SR
Balance at 31 December 1999	36,000,000	7,483,763	4,646,910	6,455,926	483,933	12,449,687	67,520,219
Net income for the year						18,980,703	18,980,703
Provision for zakat and income tax (note 9)						(3,113,465)	(3,113,465)
Zakat and income tax reimburseable by the partners						3,113,465	3,113,465
Transfer to statutory reserve		1,898,070				(1,898,070)	
Transfer from capital reserve				(185,121)		185,121	
Transfer to reserve for employees training					1,898,070	(1,898,070)	
Transfer to retained earnings					(693,847)	693,847	
Balance at 31 December 2000	36,000,000	9,381,833	4,646,910	6,270,805	1,688,156	28,513,218	86,500,922
Net income for the year						65,660,042	65,660,042
Provision for zakat and income tax (note 9)						(13,008,457)	(13,008,457)
Zakat and income tax reimburseable by the partners						13,008,457	13,008,457
Transfer to statutory reserve		6,566,004				(6,566,004)	
Transfer to capital reserve				2,039,049		(2,039,049)	
Transfer to reserve for employees training					2,407,966	(2,407,966)	
Transfer to retained earnings					(1,096,122)	1,096,122	
Dividends paid						(5,873,510)	(5,873,510)
Balance at 31 December 2001	36,000,000	15,947,837	4,646,910	8,309,854	3,000,000	78,382,853	146,287,454
Net income for the year						69,673,062	69,673,062
Provision for zakat and income tax (note 9)						(11,422,566)	(11,422,566)
Zakat and income tax reimburseable by the partners						11,422,566	11,422,566
Transfer to statutory reserve		2,052,163				(2,052,163)	
Transfer from capital reserve				(489,737)		489,737	
Transfer to reserve for employees training					1,835,729	(1,835,729)	
Transfer to retained earnings					(1,835,729)	1,835,729	
Dividends paid						(20,060,780)	(20,060,780)
<b>Balance at 31 December 2002</b>	<b>36,000,000</b>	<b>18,000,000</b>	<b>4,646,910</b>	<b>7,820,117</b>	<b>3,000,000</b>	<b>126,432,709</b>	<b>195,899,736</b>

The attached notes 1 to 20 form part of these financial statements.

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**

**(A Saudi Arabian Limited Liability Company)**

**NOTES TO THE FINANCIAL STATEMENTS**

**31 December 2002**

**1 ACTIVITIES**

The company is a Limited Liability Company registered in Saudi Arabia under Commercial Registration number 2051001444 dated 28 Muharram 1389H corresponding to 15 March 1969.

The company is engaged in geophysical and related activities necessary for the exploration and development of hydro-carbons.

The company is owned 51% by General Petroleum and Mineral Organisation (Petromin), a public organisation registered in Saudi Arabia and 49% by Compagnie Generale de Geophysique (CGG), a company registered in France.

**2 SIGNIFICANT ACCOUNTING POLICIES**

The financial statements have been prepared in accordance with accounting standards generally accepted in the Kingdom of Saudi Arabia. The significant accounting policies adopted are as follows:

**Accounting convention**

The financial statements are prepared under the historical cost convention.

**Depreciation**

Freehold land is not depreciated. All property, plant and equipment are initially recorded at cost. Depreciation is provided on all property, plant and equipment at rates calculated to write off the cost of each asset over its expected useful life.

**Inventories**

Inventories are valued at the lower of cost and market after making due allowance for any obsolete or slow moving items. Cost is determined on a first-in first-out basis (see note 4).

**Zakat and income tax**

Zakat and income tax are provided for in accordance with Saudi Arabian fiscal regulations. The liability is charged to retained earnings. Accordingly, any reimbursements by the partners of such zakat and income tax are credited to retained earnings.

**Employees terminal benefits**

Provision is made for amounts payable under the Saudi Arabian Labour Law applicable to employees accumulated periods of service at the balance sheet date.

**Contract revenue**

Contract revenue represents the invoiced value of services rendered by the company during the year.

**Foreign currencies**



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Transactions in foreign currencies are recorded in Saudi Riyals at the rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the balance sheet date. All differences are taken to the statement of income.

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
(A Saudi Arabian Limited Liability Company)

**NOTES TO THE FINANCIAL STATEMENTS (continued)**

**Expenses**

Employee related costs, depreciation expenses and training expenses are charged to operating costs. All other expenses are classified as general and administration expenses.

**3 PROPERTY, PLANT AND EQUIPMENT**

The estimated useful lives of the assets for the calculation of depreciation are as follows:

Camp and research equipment	5 1/3 years
Vehicles	4 to 5 1/3 years
Others	5 1/3 years

	Freehold land	Camp and research equipment	Vehicles	Others	Total 2002	Total 2001	Total 2000
	SR	SR	SR	SR	SR	SR	SR
Cost:							
At the beginning of the year	1,382,000	497,149,335	57,627,645	4,140,159	560,299,139	396,836,317	268,000,338
Additions		33,684,932	2,070,593	598,400	36,353,925	177,120,697	131,358,681
Disposals		(67,844,719)	(6,671,127)	(635,093)	(75,150,939)	(13,657,875)	(2,522,702)
At the end of the year	1,382,000	462,989,548	53,027,111	4,103,466	521,502,125	560,299,139	396,836,317
Depreciation:							
At the beginning of the year		226,736,507	45,757,854	3,665,882	276,160,243	220,571,636	173,096,065
Charge for the year		73,712,824	5,471,154	279,910	79,463,888	69,023,099	49,744,152
Disposals		(59,290,213)	(6,671,086)	(626,232)	(66,587,531)	(13,434,492)	(2,268,581)
At the end of the year		241,159,118	44,557,922	3,319,560	289,036,600	276,160,243	220,571,636
Net book amounts:							
At 31 December 2002	1,382,000	221,830,430	8,469,189	783,906	232,465,525		
At 31 December 2001	1,382,000	270,412,828	11,869,791	474,277		284,138,896	
At 31 December 2000	1,382,000	161,203,265	13,043,793	635,623			176,264,681

**4 INVENTORIES**

	2002	2001	2000
	SR	SR	SR
Equipment spares and others	5,866,138	5,923,488	5,500,973

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Goods in transit	<u>443,219</u>	<u>111,172</u>	<u>57,845</u>
	<u>6,309,357</u>	<u>6,034,660</u>	<u>5,558,818</u>

Saudi Arabian accounting standards require that the cost of inventories should be determined using the average method. The company is in the process of changing its computer system to enable it to use the average method. In the meantime, the cost of inventories has been determined on a first-in first-out method. It is estimated that if the company had used the average method, the cost of inventories would not have been materially different.

Inventories are held for internal use only and are not intended for resale.

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**

**NOTES TO THE FINANCIAL STATEMENTS (continued)**

**5 ACCOUNTS RECEIVABLE AND PREPAYMENTS**

	<b>2002</b>	<b>2001</b>	<b>2000</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Trade accounts receivable	50,445,316	44,642,893	34,145,818
Retentions receivable	55,237,931	44,590,975	27,219,901
Amounts due from partners	8,702,654	8,249,910	323,804
Amount due from affiliates		1,396,467	1,441,619
Advances to suppliers	1,146,825	1,342,116	340,626
Other receivables	1,010,541	79,619	71,201
Prepaid expenses	954,932	1,965,319	1,344,420
	<b>117,498,199</b>	<b>102,267,299</b>	<b>64,887,389</b>

All services rendered by the company during the year were to one customer under three contracts. All trade accounts receivable and all retentions receivable are due from that customer. The customer would normally pay 90% of the amount billed within 30 days of the date of the invoice and the balance held as retentions upon submission of zakat and income tax clearance certificate for the relevant year.

Amounts due from the partners represent SR 917,247 (2001: SR 948,643 and 2000: SR 323,804) due from Petromin and SR 10,505,319 (2001: SR 9,826,695 and 2000: Nil) from CGG (less any pending amount due to the partner) in respect of zakat and income tax respectively (see note 9).

**6 ACCOUNTS PAYABLE AND ACCRUALS**

	<b>2002</b>	<b>2001</b>	<b>2000</b>
	<b>SR</b>	<b>SR</b>	<b>SR</b>
Trade accounts payable	6,271,239	7,100,237	4,655,082
Amount due to a partner			4,600,718
Amounts due to affiliates	683,451	35,126,710	17,015,104
Other payables	998,009	1,870,985	1,415,674
Accrued expenses	4,770,652	6,248,065	5,071,669
	<b>12,723,351</b>	<b>50,345,997</b>	<b>32,758,247</b>

According to the terms offered by the suppliers, trade accounts payable are normally settled within 30 to 100 days of the date of invoice.

**7 RELATED PARTY TRANSACTIONS AND BALANCES**

During the year, a proportion (2001 and 2000: a proportion) of the company's research equipment has been acquired from one of the partners and its affiliates. The company also acquired a small proportion of its equipment spares and services requirements from the same affiliates. Prices and terms of payments of these transactions are approved by management. Amounts due from and due to the partners and their affiliates are shown in notes 5 and 6, respectively.



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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**

**NOTES TO THE FINANCIAL STATEMENTS (continued)**

**8 BANK BORROWINGS**

	2002	2001	2000
	SR	SR	SR
Bank loans	177,416,667	186,816,667	108,617,939
Bank overdrafts			11,444,501
	<u>177,416,667</u>	<u>186,816,667</u>	<u>120,062,440</u>
Less: non current portion	90,466,667	113,250,000	60,916,667
	<u>86,950,000</u>	<u>73,566,667</u>	<u>59,145,773</u>

The company obtained a loan of SR 87 million from a bank in 2000 to finance the purchase of equipment and to meet working capital needs for a contract. The loan is payable in 36 monthly instalments of SR 1.45 million each, the last being payable on 31 July 2003 with three annual balloon payments amounting to SR 34.8 million to be paid during the period of the loan, with an option to refinance the last balloon payment of SR 14.8 million on extension of the contract. The company had also obtained a loan in 2001 of SR 33 million to finance the purchase of equipment and to meet working capital needs on upgrade and two year extension of this contract. The loan is payable in 36 monthly instalments of SR 0.55 million each, the last being payable on 31 August 2004 and 9 instalments of SR 0.62 million each, the last being payable on 31 May 2005 with two balloon payments amounting to SR 7.6 million to be paid during the period of the loan.

Also another loan of SR 66 million was obtained in 2001 to finance the purchase of equipment and to meet working capital needs for another contract. The loan is payable in 36 monthly instalments of SR 1.1 million each, the last being payable on 31 March 2004 with three annual balloon payments amounting to SR 26.4 million to be paid during the period of the loan, with an option to refinance the last balloon payment of SR 11.4 million on extension of the contract.

The above loans are secured by assignment of proceeds of the related contracts and corporate guarantee from the partners and bear financial charges at commercial rates.

A loan of SR 116 million (SR 77 million received in 2002) has been obtained from another bank in 2001 to finance the purchase of equipment for a new contract started during the year. The loan is repayable in 48 monthly instalments of SR 1.93 million each, starting from 31 March 2002 and the last being payable on 28 February 2006 with three balloon payments amounting to SR 23.2 million to be paid during the period of the loan, with an option to refinance the last balloon payment of SR 7.8 million on extension of the contract. The loan is secured by assignment of proceeds of the contract and bears financial charges at commercial rates.

The borrowing agreements also require the maintenance of certain financial ratios. Instalments due in 2003 are shown as current liabilities.

**9 ZAKAT AND INCOME TAX****(a) Zakat**

The zakat provision relating to the Saudi partner consists of:

2002	2001	2000
SR	SR	SR

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Current year provision	917,247	858,387	254,079
Prior years	268	117,677	_____
	_____	_____	_____
Charge for the year	917,515	976,064	254,079
	_____	_____	_____

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
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**NOTES TO THE FINANCIAL STATEMENTS (continued)**

The Saudi partner's provision is based on his share as follows:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	SR	SR	SR
Equity	64,375,604	41,119,980	34,435,312
Opening provisions and other adjustments	3,199,279	2,414,765	1,931,747
Book value of assets	(121,549,148)	(147,931,816)	(92,700,483)
	<u>(53,974,265)</u>	<u>(104,397,071)</u>	<u>(56,333,424)</u>
Zakatable income for the year	36,689,881	34,335,472	10,163,177
Zakat base	<u>36,689,881</u>	<u>34,335,472</u>	<u>10,163,177</u>

**(b) Income tax**

The income tax provision relating to the foreign partner consists of:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	SR	SR	SR
Current year provision	10,505,319	9,826,695	2,859,386
Prior years	3,087	2,205,698	
Charge for the year	<u>10,508,406</u>	<u>12,032,393</u>	<u>2,859,386</u>

Income tax has been provided for based on the estimated taxable income at various rates up to 30% (2001 and 2000: up to 30%).

The differences between the financial and tax/zakatable income are mainly due to adjustments for certain costs/claims based on the relevant fiscal regulations.

**(c) Movements in provision during the year**

The movement in the zakat and income tax provision for the year was as follows:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	SR	SR	SR
At the beginning of year	10,685,082	3,113,465	
Provided during the year	11,425,921	13,008,457	3,113,465
Payments during the year	(10,688,437)	(5,436,840)	



At the end of year	11,422,566	10,685,082	3,113,465
	<u>                    </u>	<u>                    </u>	<u>                    </u>

**(d) Status of assessments**

Zakat and income tax assessments have been agreed with the Department of Zakat and Income Tax (DZIT) up to 1991 and finalised for the years 1994 to 1996. Decisions for the years 1992 and 1993 have been received from the Higher Appeal Committee (HAC) and the company is awaiting for the revised assessments from the DZIT which is estimated at SR 3,761,410. Assessments for the years 1997 to 2000 have been raised by the DZIT claiming additional amount of SR 4,701,115. The company appealed against these assessments.

The declaration for the year 2001 has been filed and is under review by the DZIT.

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
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**NOTES TO THE FINANCIAL STATEMENTS (continued)**

**10 CAPITAL**

Capital is divided into 36,000 authorised, issued and fully paid up shares of SR 1,000 each (2001 and 2000: 36,000 shares).

**11 STATUTORY RESERVE**

In accordance with Saudi Arabian Regulations for Companies, the company must set aside 10% of its income in each year until it has built up a reserve equal to one half of the capital. An amount of SR 2,052,163 (2001: SR 6,566,004 and 2000: SR 1,898,070) has been transferred to statutory reserve to build up a reserve equal to one half of the capital. The reserve is not available for distribution.

**12 GENERAL RESERVE**

There are no restrictions on the distribution of this reserve.

**13 CAPITAL RESERVE**

An amount equal to the profit on disposal of property, plant and equipment is transferred from retained earnings to capital reserve and vice versa in case of loss. Although the capital reserve is a free reserve, yet it is not intended to be distributed.

**14 RESERVE FOR EMPLOYEES TRAINING**

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	SR	SR	SR
At the beginning of the year	3,000,000	1,688,156	483,933
Transfer from retained earnings	1,835,729	2,407,966	1,898,070
Transfer to retained earnings	(1,835,729)	(1,096,122)	(693,847)
	<u>3,000,000</u>	<u>3,000,000</u>	<u>1,688,156</u>

An amount equal to expenses incurred on training during the year has been transferred to retained earnings.

In accordance with the company's articles of association, the company has allocated 10% of the net income for the year, subject to a maximum limit of SR 3 million, for training programmes for Saudi Arabian nationals.

**15 GENERAL AND ADMINISTRATION EXPENSES**

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	SR	SR	SR
Postage, fax and telephone	752,800	1,015,083	1,016,049
Rent	1,158,508	1,535,038	1,041,876
Printing and stationery	968,649	1,030,759	795,328
Others	2,319,637	1,239,931	889,376
	<u>5,199,594</u>	<u>4,820,811</u>	<u>3,742,629</u>



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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**

**NOTES TO THE FINANCIAL STATEMENTS (continued)**

**16 OTHER INCOME**

	2002	2001	2000
	SR	SR	SR
Profit on disposal of plant and equipment		2,039,049	
Exchange gain		231,707	194,584
Other	648,734	276,515	(5,139)
	648,734	2,547,271	189,445
	648,734	2,547,271	189,445

**17 OTHER EXPENSES**

	2002	2001	2000
	SR	SR	SR
Loss on disposal of plant and equipment	489,737		185,121
Exchange loss	375,386		
	865,123	—	185,121
	865,123	—	185,121

**18 CAPITAL COMMITMENTS**

The directors have authorised future capital expenditure amounting to SR 16 million (2001: SR 36 million and 2000: SR 39 million).

**19 CONTINGENT LIABILITIES**

The company's banker has issued payment guarantees amounting to SR 9,129,001 (2001: SR 4,427,886 and 2000: SR 12,969,176). The bankers of one of the partners have provided counter guarantees to the banker on behalf of the company.

The company's bankers have also issued, on behalf of the company, performance bonds amounting to Nil (2001: SR 6,500,000 and 2000: SR 6,500,000).

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**

**NOTES TO THE FINANCIAL STATEMENTS (continued)**

**20 SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN ACCOUNTING PRINCIPLES FOLLOWED BY THE COMPANY AND UNITED STATES GENERALLY ACCEPTED ACCOUNTING PRINCIPLES**

The financial statements of the company have been prepared in accordance with accounting standards generally accepted in the Kingdom of Saudi Arabia. For purposes of these financial statements, the following are the differences between the company's accounting principles utilized and United States Generally Accepted Accounting Principles (US GAAP).

a. Following is a reconciliation of net income to US GAAP:

	<u>2002</u>	<u>2001</u>
	<u>SR</u>	<u>SR</u>
Net income according to financial statements (Saudi accounting standards)	69,673,062	65,660,042
US GAAP adjustments:		
Provision for zakat and income tax	(11,422,566)	(13,008,457)
Deferred tax debit	272,207	226,723
Additional liability of zakat and income tax for finalized years (note 9)	(3,761,410)	(3,761,410)
Training expenses charged directly against retained earnings	(1,835,729)	(1,096,122)
Net income under US GAAP	<u>52,925,564</u>	<u>48,020,776</u>
Difference in net income between Saudi Standards and US GAAP's	<u>16,747,498</u>	<u>17,639,266</u>

The amount of zakat and income tax assessed for the years 1997 to 2000 of SR 4,701,115 has not been taken into consideration in the above reconciliation as this is under appeal and the final amount payable cannot be determined with reasonable accuracy.

b. Following is a reconciliation of partners' equity for differences with US GAAP:

	<u>2002</u>	<u>2001</u>
	<u>SR</u>	<u>SR</u>
Partners' equity according to financial statements (Saudi accounting standards)	195,899,736	146,287,454
US GAAP adjustments:		
Difference in net income	(16,747,498)	(17,639,266)
Zakat and income tax reimbursable by the partners	15,183,976	16,769,867
Reimbursement of training expenses from retained earnings	1,835,729	1,096,122
Partners' equity under US GAAP	<u>196,171,943</u>	<u>146,514,177</u>

c. Dividends paid

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Dividends paid during the year amounting to SR 20,060,780 (2001: SR 5,873,510) were made to the partners on account of zakat and income tax equalisation.

### d. Related party transactions

The following are the amounts of transactions with related parties as described in note 7:

	<u>2002</u>	<u>2001</u>
	<b>SR</b>	<b>SR</b>
Expenses charged to Operating costs	5,445,185	4,424,772
Purchase of fixed assets	26,627,724	139,503,390

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**ARABIAN GEOPHYSICAL & SURVEYING COMPANY**  
**(A Saudi Arabian Limited Liability Company)**

**NOTES TO THE FINANCIAL STATEMENTS (continued)**

## e. Bank borrowings

The company has 4 (2001: 5) long-term loan facilities outstanding at the end of the year. The following are the summarized details:

i)	Loan of Nil (2001: SR 8.6 million)	Interest rate: RIBOR + 1.25% p.a.
ii)	Loan of SR 24.9 million (2001: SR 52.3 million)	Interest rate: RIBOR + 1.20% p.a.
iii)	Loan of SR 20.4 million (2001: SR 30.8 million)	Interest rate: RIBOR + 0.90% p.a.
iv)	Loan of SR 35.4 million (2001: SR 56.1 million)	Interest rate: RIBOR + 0.90% p.a.
v)	Loan of SR 96.7 million (2001: SR 39.0 million)	Interest rate: SIBOR + 0.50% p.a.

RIBOR Riyadh Interbank offered rates.

SIBOR Saudi Interbank offered rates.

**Table of Contents****EXHIBIT INDEX**

Exhibit No	Exhibit
1.1*	English translation of the Articles of Association <sup>(1)</sup> ( <i>statuts</i> ) of the Registrant.
2.1	Indenture dated as of November 22, 2000 between the Registrant and The Chase Manhattan Bank as Trustee, which includes the form of the 10 5/8% Senior Notes due 2007 as an exhibit thereto. <sup>(2)</sup>
4.1*	1997 Stock Option Plan
4.2*	2000 Stock Option Plan
4.3	2001 Stock Option Plan <sup>(3)</sup>
4.4*	2002 Stock Option Plan
4.5	Lease dated as of December 4, 1990 for the Registrant's principal executive offices in Massy, France <sup>(4)</sup>
4.6	Lease dated as of April 2, 1991 for the Registrant's data processing center in London, England <sup>(4)</sup>
4.7	Leases dated as of November 8, 1991 and December 13, 1996 for the Registrant's data processing center in Houston, USA. <sup>(4)</sup>
4.8	Lease dated as of September 1, 1996 for Sercel's factory in Tulsa, USA <sup>(4)</sup>
4.9	Time charter agreement dated as of March 1, 1996 for <i>CGG Föhn</i> , as amended on July 1, 1996. <sup>(4)</sup>
4.10	Time charter agreement dated as of May 7, 1996 for <i>CGG Harmattan</i> , as amended on July 1, 1996. <sup>(4)</sup>
4.11	Time charter agreement dated as of June 1, 1996 for <i>CGG Mistral</i> , as amended on July 1, 1996. <sup>(4)</sup>
4.12	Time charter agreement dated as of December 22, 1997 for <i>CGG Alizé</i> . <sup>(6)</sup>
4.13	Registration Rights Agreement dated December 13, 1999 by and between the Registrant and The Beacon Group Energy Investment Fund II, L.P. <sup>(7)</sup>
4.14	Amendment Agreement in respect of \$180,000,000 Multicurrency Revolving Credit Facility Agreement dated August 31, 2000. <sup>(2)</sup>
4.15	Purchase Agreement dated February 5, 2002 among the Registrant, RBC Dominion Securities Corporation and Salomon Smith Barney Inc. <sup>(3)</sup>
4.16	Registration Rights Agreement dated as of February 8, 2002 by and among the Registrant, RBC Dominion Securities Corporation, Salomon Brothers International Limited <sup>(3)</sup>
7*	Statement re Computation of Ratios.
8*	Subsidiaries of the Registrant.
12.1*	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (10 U.S.C. §1350).
12.2*	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (10 U.S.C. §1350).

## Notes:

\* Filed herewith.

(1) Incorporated by reference to the Registrant's Report on Form 6-K, dated November 14, 2002.

(2) Incorporated by reference to the Registrant's Registration Statement on Form F-4 (SEC File No. 333-13060), dated January 11, 2001, as amended.

(3) Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2002, dated May 3, 2002.

(4) Incorporated by reference to the Registrant's Registration Statement on Form F-1 (SEC File No. 333-06800), dated April 16, 1997, as amended.

(5) Incorporated by reference to the Registrant's Report on Form 6-K, dated September 5, 2002.

(6) Incorporated by reference to the Registrant's Registration Statement on Form F-3 (SEC File No. 333-11074), dated November 3, 1999, as amended.



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- (7) Incorporated by reference to the Registrant's Report on Schedule 13D, dated December 13, 2000, as amended.
- (8) Incorporated by reference to the Registrant's Report on Schedule 13D, dated October 16, 2000, as amended.