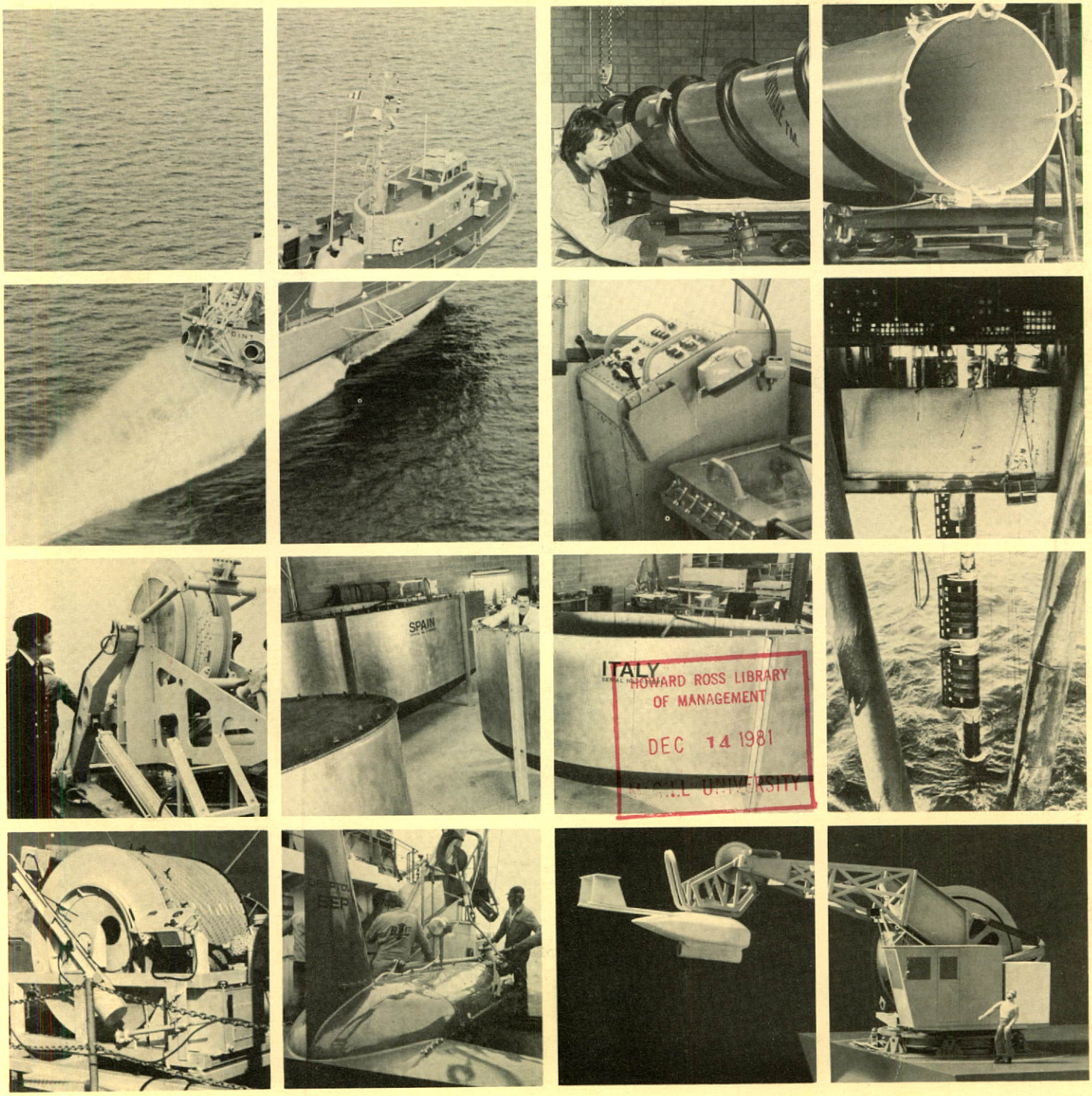
FATHOM OCEANOLOGY LIMITED

1978 ANNUAL REPORT



The Company

Background

Fathom Oceanology Limited was incorporated in December 1968 as a Canadian (Federal) Corporation. The company first issued its shares to the public in September 1970.

At the outset the primary objective of the company was to translate and develop a unique technology into a viable commercial operation. The founders of Fathom were the principals and business associates of Hale & Associates Limited, (a Toronto based engineering consulting company) all of whom were engaged in the towing technology developed under the sponsorship of the Department of Defence Production during the 1960's. Defence against submarines was the only objective at that time and it required high speed submerged towing of surveillance equipment from ships.

The founders of Fathom recognized the possibility of utilizing this new technology in both military surveillance and commercial exploration activity (oil, gas, minerals). Fathom Oceanology Limited was set up as the vehicle through which this recognition would be exploited.

The first significant commercial sale was to Texaco in Houston and the first important military sale was to the Royal Swedish Navy, both of which were secured about 15 months after incorporation. Thus began a business of an international character with customers in Australia, Brazil, Britain, France, Germany, Holland, Italy, Japan, Norway, Spain and the United States.

The primary product is a towing system which includes a submerged streamlined vehicle (the "fish") which is the platform for carrying the "black box" (usually electronic) built by others. The fish is launched and towed at depth on a long cable which is streamlined with Fathom FLEXNOSE™ fairings to reduce cable drag. On the deck is the Fathom built launch and recovery mechanism, special winch and ship's motion compensating mechanism, hydraulic power supply and operator's console.

Applications of the system and related "black box" sensor package include —

- oil and gas search through seismic, sonar and hydrocarbon detection methods.
- viewing of the ocean floor by underwater TV.
- environmental surveillance — water conditions, life content.
- mine countermeasure systems.
- submarine detection (variable depth sonar).

Developments

Early in fiscal 1976, with the emerging international acceptance of the Fathom expertise in towing systems and the resultant increase in business, a portion of the company's resources was focussed on the development of other proprietary products. It was recognized as particularly desirable to develop products that would generate repeat orders to balance the custom-oriented business of designing and building towing systems.

Two such products have been created and have generated new markets. The first of these is RIGSTREAM™ fairing, a relatively low cost alternative to the sophisticated FLEXNOSE™ fairing that forms a vital part of the towing system. RIGSTREAM™ has also found a place in reducing cable drag on buoys moored in turbulent waters. The first such application came from the National Oceanographic and Atmospheric Administration (N.O.A.A.) for an environmental buoy moored in deep water off Hawaii. Many orders have followed from a variety of ocean-oriented organizations, around the world.

The second product is the highly successful PIPESTREAM™ fairing. These huge streamlined structures of high impact Cycolac plastic integrated with a tubular aluminum framework are assembled on offshore drill risers to permit drilling in deep turbulent waters. Sedco of Dallas was our first customer and first repeat order customer. Offshore International and Esso are also using PIPESTREAM™. This product has opened up the feasibility of drilling in the Amazon Delta where four knot currents made conventional bare drill risers unworkable. We are proud of this well publicized achievement. It has importance to the development of future energy resources.

Early in 1978 the company developed two other products, both allied to the PIPESTREAM™ market.

The first is a product known as STARSTRAKE™. It is a P.V.C. extrusion that when wrapped around a pipe in a helix, prevents vortex shedding and pipe vibration when the pipe is subjected to surrounding water flow. Underwater pipelines and offshore structures both existing and new will be the market for this product. At existing sites retrofit by divers is possible.

The other product is known as CASCAN™. It is a new concept in compressed air buoyancy to offset drill riser weight in deep ocean drilling operations. CASCAN™ can be used in conjunction with PIPESTREAM™ if both depth and currents are involved. It can also be used independently for deep drilling where currents and tides do not impose a threat but only depth is a problem. A large potential market exists for CASCAN™ in the offshore oil drilling industry.

Fathom maintains an ongoing patent and trade mark protection program for all proprietary developments.

Future prospects

Based on contracts in hand, strong activity in the towing system aspect of the business is assured through 1982. Of major importance are six systems for Italy through Raytheon Company of Rhode Island as well as a major development contract with the U.S. Navy. Several opportunities in the bid stage are expected to extend this activity in due course.

We are confident that the new products for the offshore oil and gas industry discussed above will play an increasingly important role in our future earnings.

To the shareholders.

Summary

Net income for the year ended March 31, 1978 amounted to $157,600 or 10¢ a share, including an extraordinary item arising from the reduction in income taxes due to loss carry forward of $66,200 or 4¢ a share. This compares with net income of $17,000 or 1¢ per share reported for the previous year.

Due to contractual delays at the beginning of the year, the gross revenue for 1978 was about 10% less than 1977, but strict cost controls yielded the 9-fold increase in profits herein reported. The work on hand at March 31, 1978 is $4,650,000. This compares with $1,626,000 a year earlier. This large increase in backlog provides the company with increased strength as a basis for future growth.

Completed contracts and work in progress

In previous years, one or two specific contracts dominated the year's work. In 1978 diversification of work is apparent. Repeat-order faired cable winches for Western Electric Corp., repeat-order sonar domes for Raytheon Company and numerous orders for FLEXNOSE™ and RIGSTREAM™ fairings accounted for a substantial portion of the revenue. A second production run of PIPESTREAM™ fairings for Sedco concurrent with a run of identical units for Offshore International formed an important part of the year's performance.

With more equipment now operating at sea, engineering field service and spares support is becoming a significant revenue item.

The Engineering Department was principally occupied on Phase 1 of the $1.5 million U.S. Navy contract which was received in fiscal 77.

In January 1978, the $3.5 million contract with Raytheon Company (the largest contract in our history) was announced for six Variable Depth Sonar Towing Systems for the Italian Navy. The engineering phase of this work was underway at year end. The delivery of the first of these units is scheduled for October 1979 with the sixth unit in March 1982.

The development of new products

Elsewhere in this report, we discuss new product development in some detail, and we wish to emphasize the importance Fathom places on new development programs. Our success with PIPESTREAM™ has permitted us to enter a new market — offshore drilling, production platforms and pipelines — with a good measure of credibility. In consequence we find the industry willing to discuss with us uses for our new STARSTRAKE™ and CASCAN™ products. The prospects for both these products look extremely good. The common denominator of all these pipe-related products is multiple-unit production, a great stabilizer in a custom-oriented industry.

Financial affairs

The year just ended has seen an improvement in the company's financial position. There has been an increase of $190,000 (from $40,000) in working capital provided mainly by the increased profits as well as control in the growth of capital assets. The working capital ratio has moved upward from 1.1:1 last year to 1.8:1 today.

These improvements in our current financial position, coupled with our excellent banking relationships contribute to our confidence in the company's planned growth.

The outlook

Fathom, in its tenth year, has obtained a measure of financial stability, international recognition in the marketplace, and a strong proprietary product line.

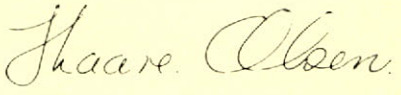
The ocean industry in which we operate is a challenging one, having an environment which spawns problems, new problems, problems having no precedent of solution. Particularly in the energy related offshore activity, the easy sites have been worked out, forcing men to tackle the turbulent waters of the North Sea, the Amazon Delta, the Indian Ocean and the Central Pacific. It is, however, these problems that permit Fathom to create solutions and thus develop proprietary products. As we see it, the problems will keep coming and the industry will keep growing.

Staff

The business we are in is an exciting one and it attracts dedicated people, several of whom have been with the company from the very early days.

Success and progress is only as good as the people who make it happen. It is to the whole Fathom team that the Directors once again express their respect and thanks for a job well done.

By order of the Board of Directors



K. R. Olsen,
Chairman of the Board

FATHOM OCEANOLOGY LIMITED

(Continued under the Canada Business Corporations Act)

Consolidated balance sheet

March 31, 1978
(with comparative figures at March 31, 1977)

Assets

	1978	1977
Current assets:		
Accounts receivable (notes 3(a) and (c))	**$300,640**	$290,110
Costs and estimated earnings in excess of billings on uncompleted contracts	**180,995**	171,397
Inventory, at lower of cost and net realizable value	**51,442**	44,976
Prepaid expenses	**3,950**	5,347
Total current assets	**537,027**	511,830
Fixed assets (note 2)	**167,155**	188,919
Other assets:		
Patents and patents pending, at amortized cost	**27,951**	48,202
Rent deposits	**10,213**	10,213
Completed engineering designs, at nominal value	**1**	1
Total other assets	**38,165**	58,416
	$742,347	$759,165

On behalf of the Board:
K. R. Olsen, Director
N. E. Hale, Director

(See accompanying notes)

Liabilities and shareholders' equity

	1978	1977
Current liabilities:		
Bank indebtedness (note 3(c))	**$ 49,394**	$ 99,756
Accounts payable and accrued charges	**119,218**	249,026
Billings in excess of costs and estimated earnings on uncompleted contracts	**17,980**	1,800
Due to Ontario Development Corporation (note 3(a)) —		
Export support loan	**109,446**	112,966
Current portion of venture capital loan	**10,478**	9,687
Total current liabilities	**306,516**	473,235
12% convertible notes payable (notes 3(b) and 4(a))	**172,050**	177,050
Due to Ontario Development Corporation — venture capital loan (note 3(a))	**45,075**	55,553
	217,125	232,603
Total liabilities	**523,641**	705,838
Shareholders' equity:		
Share capital (notes 3(b) and 4) —		
Authorized:		
3,000,000 common shares without nominal or par value		
Issued:		
1,525,667 common shares (1977 — 1,504,667 shares)	**709,518**	701,733
Deficit (statement 2)	**(490,812)**	(648,406)
	218,706	53,327
	$742,347	$759,165

Auditors' report

To the Shareholders of
FATHOM OCEANOLOGY LIMITED:

We have examined the consolidated balance sheet of Fathom Oceanology Limited as at March 31, 1978 and the consolidated statements of income and deficit and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at March 31, 1978 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Mississauga, Canada,
May 12, 1978.

CLARKSON, GORDON & CO.
Chartered Accountants

FATHOM OCEANOLOGY LIMITED

Statement 2

Consolidated statement of income and deficit

for the year ended March 31, 1978
(with comparative figures for 1977)

	1978	1977
Contract revenue	**$1,814,811**	$2,036,237
Costs:		
Manufacturing	**1,186,501**	1,544,784
Administrative	**443,064**	435,244
Interest — long-term debt	**25,751**	26,837
— short-term debt	**21,461**	12,347
Foreign exchange gain	**(19,560)**	
	1,657,217	2,019,212
Income before income taxes and extraordinary item	**157,594**	17,025
Income taxes	**66,200**	7,150
Income before extraordinary item	**91,394**	9,875
Extraordinary item — reduction in income taxes arising from losses carried forward (note 7)	**66,200**	7,150
Net income for the year	**157,594**	17,025
Deficit, beginning of year	**(648,406)**	(665,431)
Deficit, end of year	**$ (490,812)**	$ (648,406)
Income per share:		
Before extraordinary item	**$0.060**	$0.007
For the year	**$0.104**	$0.011
Fully diluted income per share (note 8):		
Before extraordinary item	**$0.053**	
For the year	**$0.086**	

(See accompanying notes)

FATHOM OCEANOLOGY LIMITED

Statement 3

Consolidated statement of changes in financial position

for the year ended March 31, 1978
(with comparative figures for 1977)

	1978	1977
Funds provided from:		
Operations —		
Income before extraordinary item	**$ 91,394**	$ 9,875
Charges to operations not resulting in an outlay of funds:		
Depreciation and amortization	**58,856**	62,792
Amortization of patents and patents pending	**24,982**	24,129
Funds provided from operations	**175,232**	96,796
Extraordinary item	**66,200**	7,150
Issue of common shares	**2,785**	3,915
Total funds provided	**244,217**	107,861
Funds were applied to:		
Purchase of fixed assets (net of government grants of $30,218 in 1977)	**37,092**	94,164
Cost of patents and patents pending	**4,731**	4,781
Decrease in long-term debt (excluding $5,000 on the conversion of long-term debt to common shares; $7,000 in 1977)	**10,478**	9,687
Total funds applied	**52,301**	108,632
Increase (decrease) in working capital	**191,916**	(771)
Working capital, beginning of year	**38,595**	39,366
Working capital, end of year	**$230,511**	$ 38,595
Represented by:		
Current assets	**$537,027**	$511,830
Less current liabilities	**306,516**	473,235
	$230,511	$ 38,595

(See accompanying notes)

Notes to consolidated financial statements March 31, 1978

1. Accounting policies

The following is a summary of significant accounting policies followed in the preparation of the consolidated financial statements.

(a) Basis of consolidation —

The consolidated financial statements include the accounts of the company and its wholly-owned subsidiary, Hale & Associates Limited.

(b) Contracts —

Profits on contracts are recorded using the percentage of completion method. Complete provision is made for losses on contracts in progress when they first become known. In the case of contracts extending over one or more years, revisions in cost and profit estimates, which can be significant, are reflected in the accounting period in which the relevant facts become known.

When the company enters into contracts with customers to develop and produce specialized equipment with the expectation that the Canadian government will share the specific development costs with the customer, the related government grants are accounted for as revenue by the company.

(c) Fixed assets —

Fixed assets are recorded at acquisition cost. Where government grants are received specifically for a particular fixed asset, the cost of that asset is reduced by the amount of the grant.

Depreciation is recorded in the accounts on the declining balance basis at the following annual rates:

Equipment and ship ocean simulator	20%
Patterns and tooling	33⅓%
Vehicle	30%

Leasehold improvements are amortized on the straight-line method over the term of the lease. Costs which extend the useful life of a fixed asset are capitalized. All other costs of repairs and maintenance are charged to operations as incurred.

(d) Research and development —

Research and development costs, excluding costs of patents and patents pending, are charged to operations as incurred. Where government grants are received for research and development projects initiated by the company for its own purposes, these grants are deducted from the research and development costs.

(e) Patents and patents pending —

The costs incurred for patents and patents pending are capitalized. The costs incurred to March 31, 1971 were amortized on the basis of sales to March 31, 1978. Costs subsequent to 1971 are being amortized on a straight-line basis over a ten year period.

(f) Engineering designs —

Costs of engineering designs are charged to operations as incurred.

(g) Exchange translation —

Certain of the company's transactions occur in foreign currencies. Current assets and current liabilities relating to these transactions have been translated into Canadian currency at the rate of exchange prevailing at the year end. Revenue and expenses have been translated at exchange rates prevailing on the date of such transactions. The exchange gains and losses arising on translation have been included in income for the year.

2. Fixed assets

	Original cost	Government grants (note 6)	Accumulated depreciation and amortization	Net book value 1978	Net book value 1977
Equipment	$156,665	—	$ 91,832	$ 64,833	$ 71,500
Ship ocean simulator	163,719	$ 71,849	52,860	39,010	48,762
Leasehold improvements	39,649	—	29,640	10,009	16,091
Vehicle	2,249	—	1,147	1,102	1,574
Patterns and tooling	271,071	34,624	184,246	52,201	50,992
Total	$633,353	$106,473	$359,725	$167,155	$188,919

Reference is made to note 3(a).

3. Loans and notes payable

(a) The Ontario Development Corporation (O.D.C.) —

In 1973, the company entered into an agreement with O.D.C. under which O.D.C. agreed to advance an 8% venture capital loan of $100,000 and a 6½% export support loan of up to $150,000. The maximum level of the export loan was subsequently increased to $500,000. The venture capital loan is being repaid over ten years in blended monthly payments of principal and interest of $1,206. The export support loan is available to provide funds upon receipt of a contract to finance the manufacture and sale of equipment for export. Of the $500,000 available, $350,000 can be used to finance the manufacturing stage of export orders. The remainder can be used to finance related receivables. Loans are repayable out of amounts received from the relevant contracts, or on demand.

The loans are secured by:

(i) chattel mortgage on equipment owned by the company, except for certain equipment as referred to in note 3(c);

(ii) a floating charge on all assets (except accounts receivable required to secure any bank loans as referred to in note 3(c));

(iii) an assignment and postponement of the 12% convertible notes outstanding as described in note 3(b);

(iv) an assignment of fire and export insurance policies; and

(v) an assignment of specific accounts receivable related to sales financed under the export support loan program.

(b) 12% convertible notes —

Under the terms of an agreement signed by the noteholders in favour of O.D.C., the 12% convertible notes cannot be redeemed until all loans from O.D.C. have been repaid.

Pursuant to the terms of a resolution passed by the shareholders on August 27, 1975, the notes are convertible at the option of the noteholder at the rate of 1 share for every $0.50 of notes until August 27, 1978. Thereafter, the rate increases to $0.60. Reference is made to note 4(a).

The company has reserved 344,100 unissued shares for the possible conversion of the remaining notes.

(c) Bank indebtedness —

The bank loan, which is repayable on demand, is secured by a general assignment of those book debts and inventories not assigned to the Ontario Development Corporation, as well as a chattel mortgage on specific equipment.

4. Share capital

During the year:

(a) 10,000 common shares were issued on the conversion of $5,000 of the 12% convertible notes;

(b) 11,000 common shares were issued for $2,785 cash under the company's share purchase plan.

Options to purchase up to 120,000 common shares of the company's authorized share capital are available to certain senior officers at option prices of $0.315 and $0.36. Under the option plan 45,000 common shares may be purchased at any time to 1980 and 75,000 common shares may be purchased at a rate of 20% cumulatively over five years to 1981.

Under the company's share purchase plan certain senior officers and key employees have subscribed to purchase 33,000 shares at the lesser of the initial prices of $0.315 and $0.36 or 90% of the market price on the last market day of each subscription year exercised. These shares may be purchased at any time up to 1980 except for 9,000 shares which may be purchased at a rate of 3,000 shares each year.

Under the company's share option and share purchase plans referred to above, 173,000 of the company's authorized but unissued common shares are reserved for issue to officers and employees.

5. Commitment

At March 31, 1978 the company had a commitment under a premises lease to pay rent at an annual rate of approximately $30,000 up to November 30, 1979.

6. Contingent liabilities for Government of Canada grants

From 1972 to 1977 the company received grants under certain federal government programs, as follows:

(a) $602,500 (including $76,255 for fixed assets) for the development of towing systems. All or a portion of this grant is repayable out of future sales arising from the developed technology, or with government approval the funds may be reinvested in future development projects.

(b) $56,100 for the design of a towing system. Of this amount, $18,700 is repayable on a royalty basis from any future sales of the fully developed system.

(c) $250,375 for the design and development of a new deep towing system for delivery to a West German customer. Of this amount $30,218 was for a capital asset which could be repayable should the company put this asset into commercial use.

To March 31, 1978 no provisions have had to be made in the company's accounts with respect to the possible repayment of the required portion of any of these grants.

7. Income taxes

Losses aggregating $14,300 (which expire in 1980) and depreciation charges of approximately $490,200 recorded in the company's accounts but not claimed for tax purposes are available to reduce taxable income of future years.

8. Earnings per share

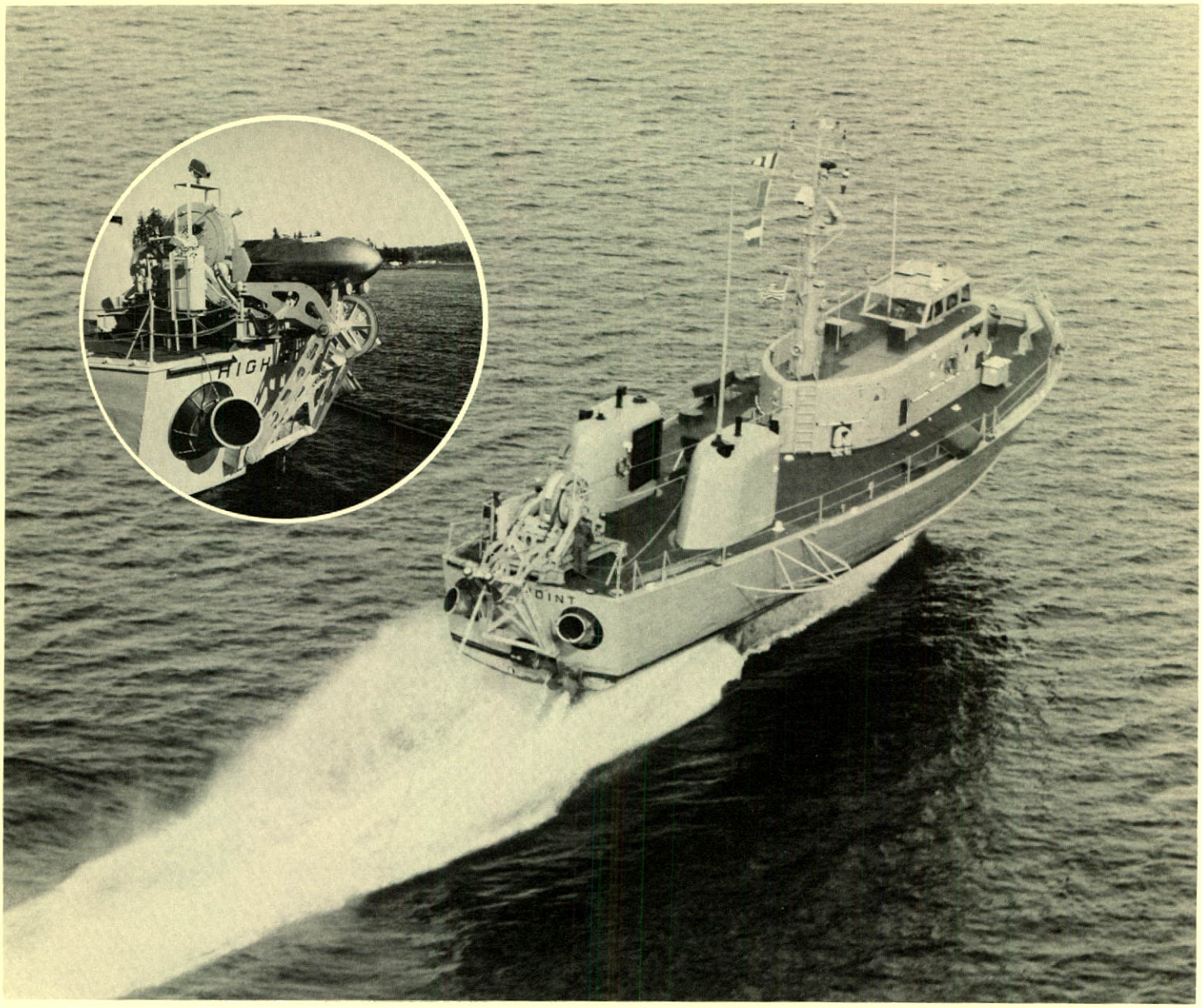
Fully diluted earnings per share have not been shown for 1977 as the conversion of outstanding notes and exercise of share options would have had no dilutive effect.

9. Statutory information

It is reported that during the year the aggregate direct remuneration paid to directors and officers was $182,150.

10. Continuance under the Canada Business Corporations Act

During the year, the company was granted continuance under the Canada Business Corporations Act.

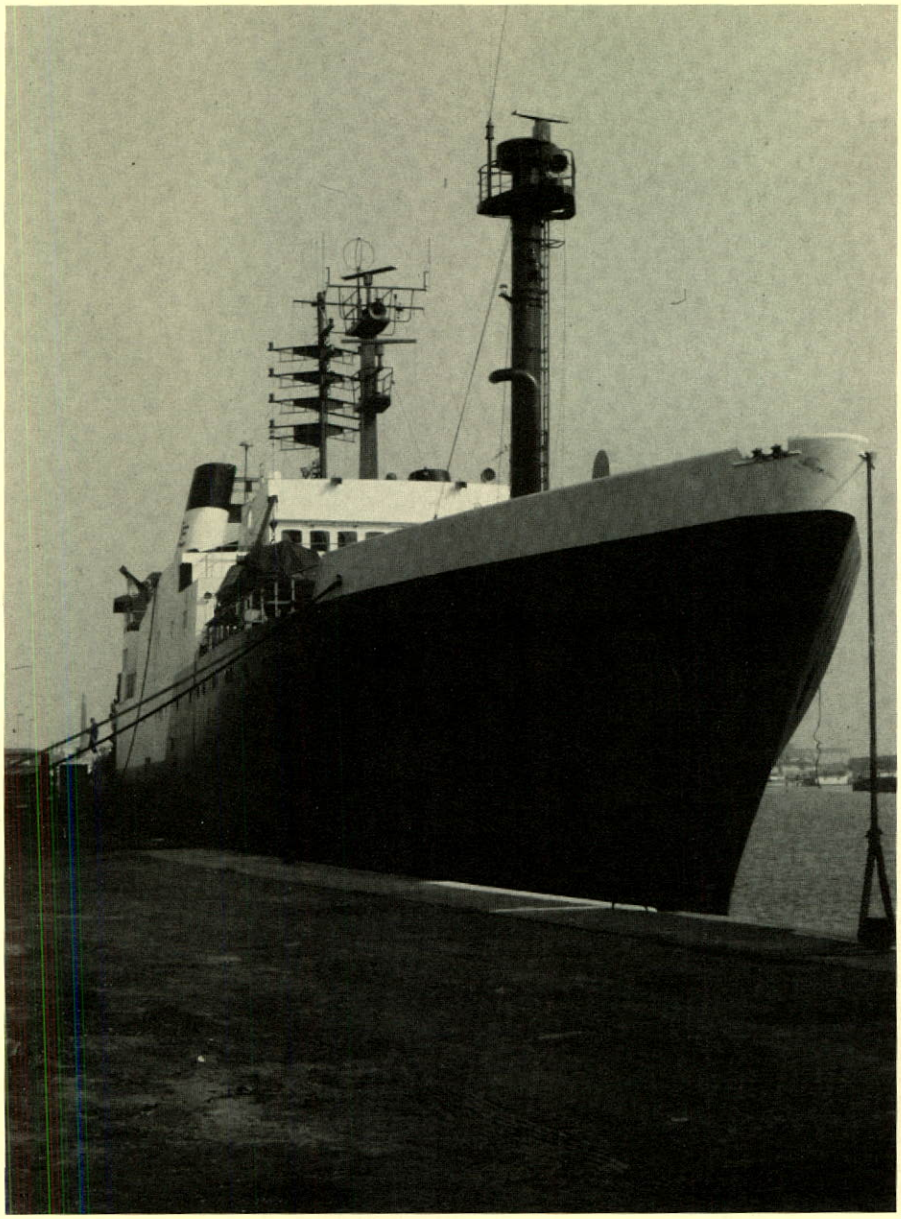


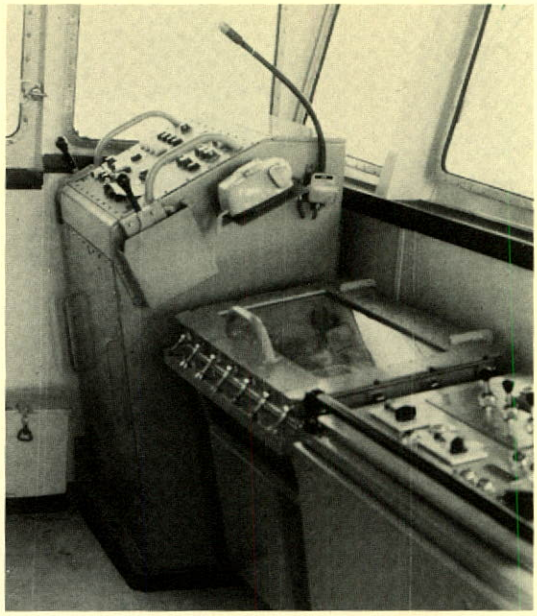
Military towing systems

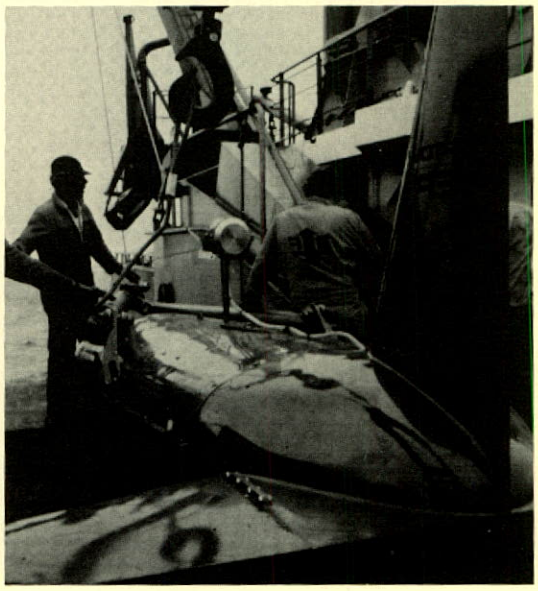
For submarine defence the accent is on speed. Here a Fathom towing system is mounted on the after deck of the Boeing hydrofoil "HIGHPOINT". The Governments of Canada, U.S.A. and Sweden together with Boeing, Fathom and Canadian Westinghouse, cooperate in viability studies for ultra high speed towed sonar. The Fathom equipment includes the fish, faired cable, onboard launch and recovery gear, winch, motion compensation, operator's console and hydraulic power unit (below decks).

The Boeing hydrofoil 'Highpoint' towing at high speed.

Inset: A close view of the Fathom towing system mounted on the after deck of the vessel. The fish is nine feet long and weighs a ton.







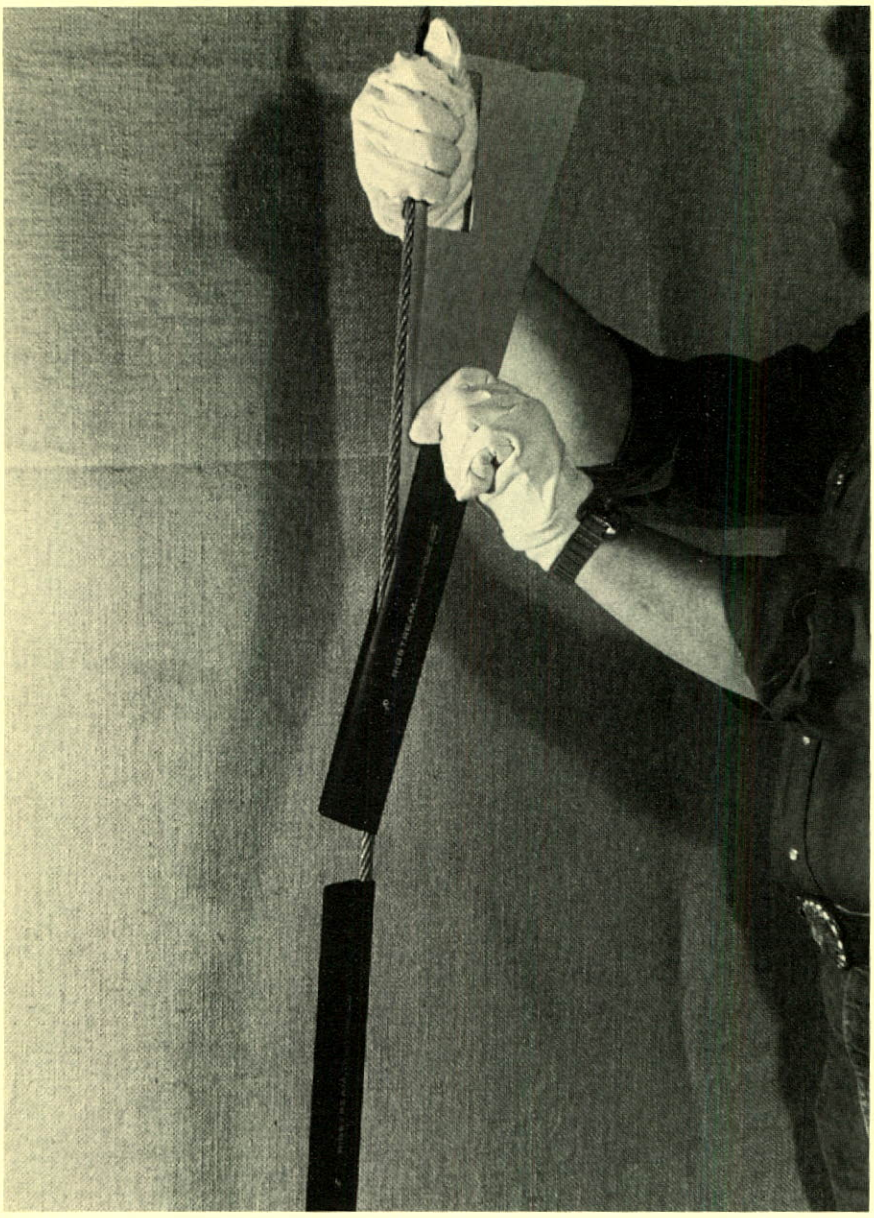
Towing for commercial exploration

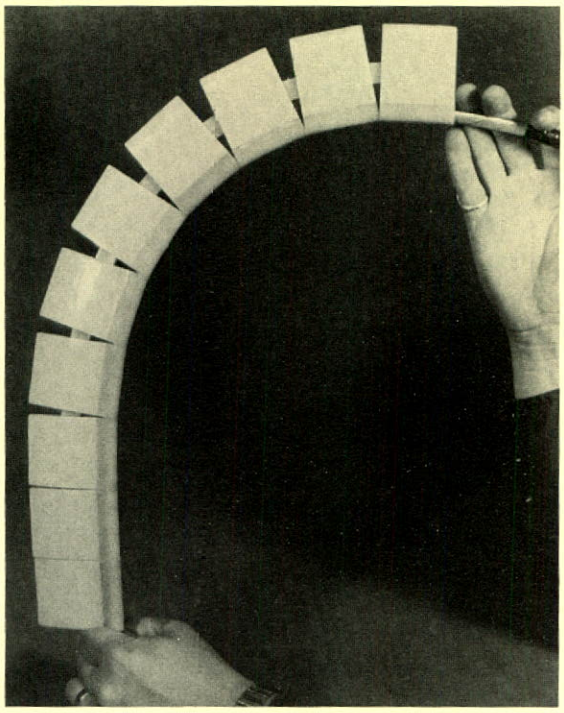
The greatest offshore challenge of all is to explore and exploit the ultimate depths of the oceans. Project "DEEP-TOW II", previously reported at various stages of its development in earlier reports, went to sea during our fiscal 1978 year. Its purpose is the search for manganese nodule fields on the central Pacific floor, five miles below the surface.

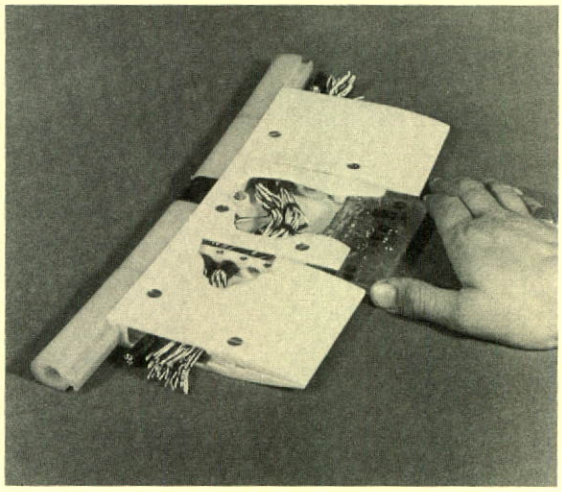
Left: The West German research ship 'Sonne' that carries the Fathom 'Deeptow' system.

Top right: The control console.

Bottom right: The 'Deeptow' fish which houses the sensing equipment used in the manganese nodule search.







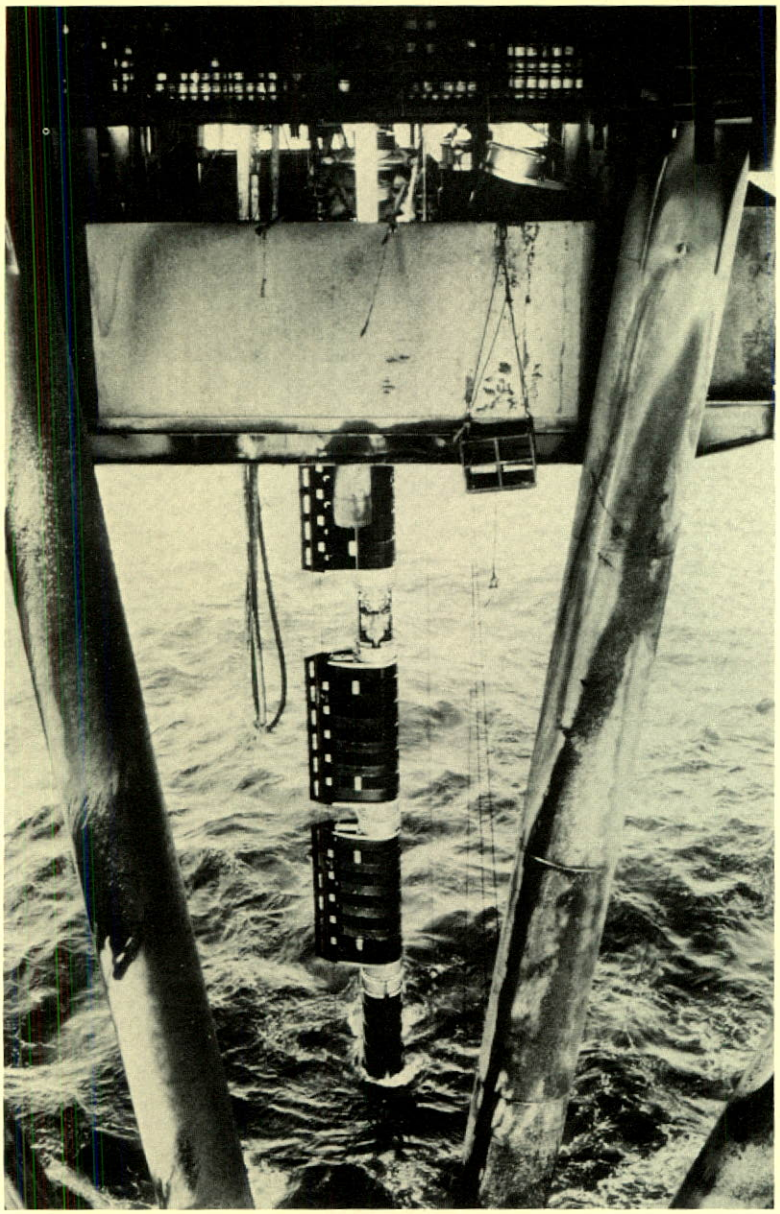
Cable fairing

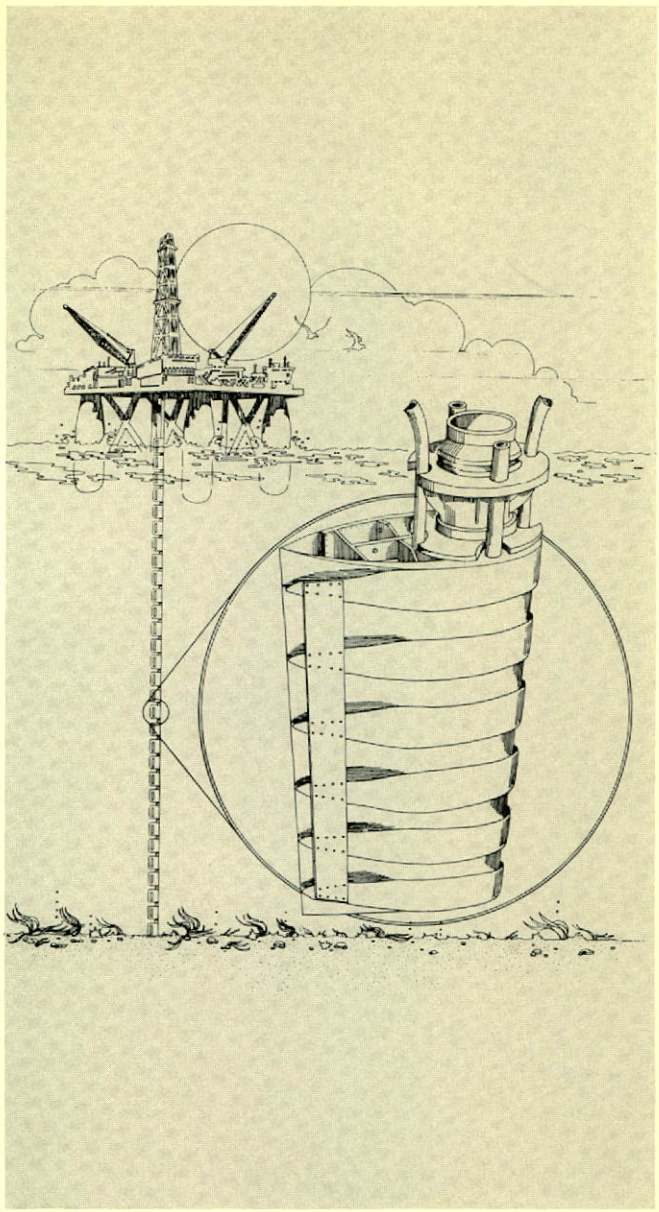
The purpose of cable fairing is to cut down the hydrodynamic drag and prevent vortex shedding induced vibration.

Left: 'RIGSTREAM'™ is the simplest fairing. It can be snapped on and off the cable each time it is taken in and out of the water. Most useful for buoy cables and low budget scientific towing expeditions.

Top right: 'FLEXNOSE'™ is more complex since it is designed to flex with the cable and pass over sheaves and winch drums at high cable tensions. Flexnose is used for high speed military systems or any all-weather submerged towing applications where handling hazard must be minimized.

Bottom right: This special Flexnose fairing is probably the ultimate in fairing sophistication wherein the fairing nose includes a temperature probe and the fairing tail carries a pre-amplifier circuit with multiple communication wires running through the tails to the winch above. This was a special application built for a U.S. research institute.



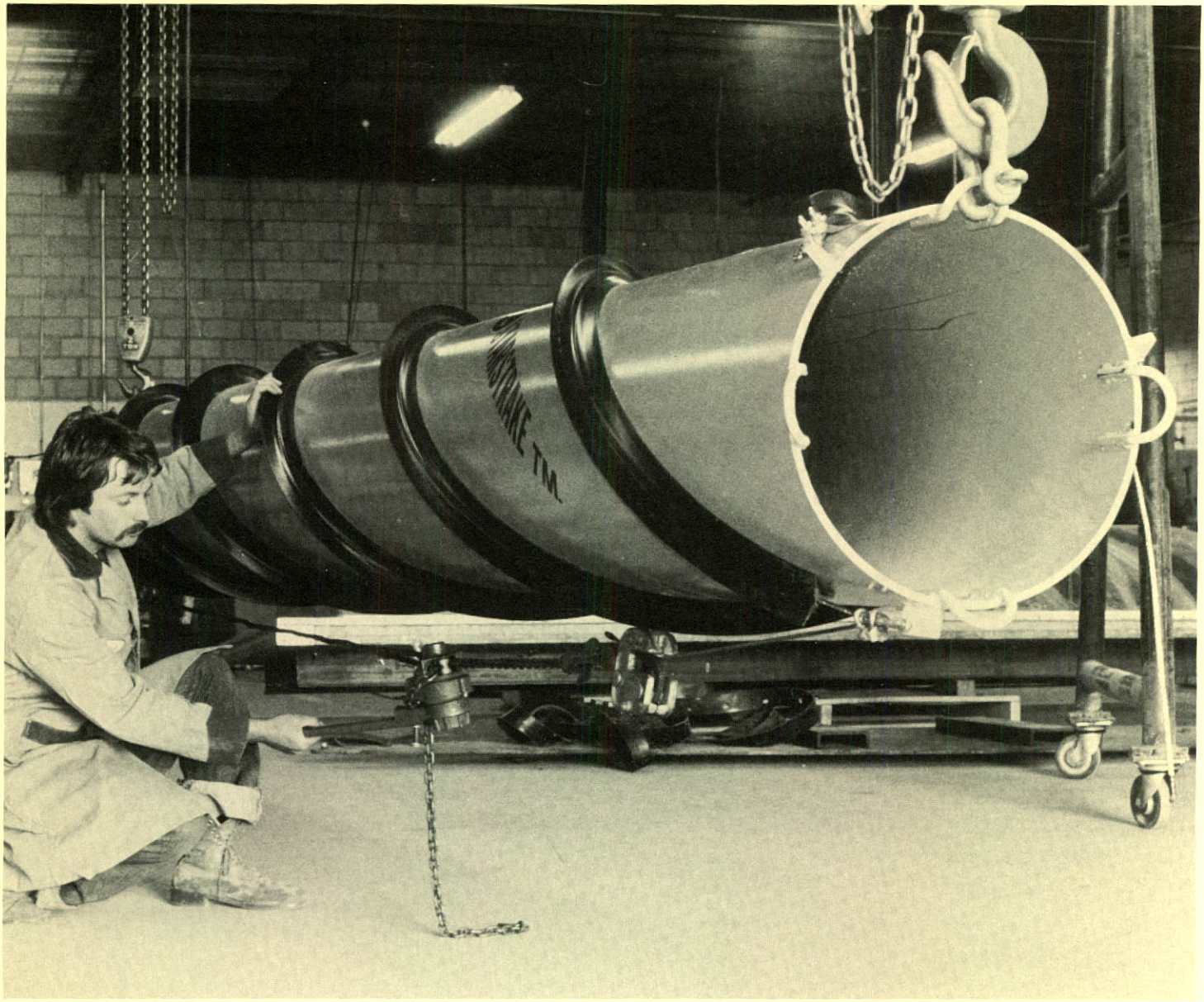


'PIPESTREAM'™ fairing

Serving the same purpose as cable fairing — reducing drag and preventing vibration — these huge fairings protect drill-riser pipes. Fifteen feet high and seven feet nose to tail, each fairing segment is closed around the riser pipe. In water the fairing is weightless and can pivot to any point of the compass as currents shift.

Left: The bottom fairing swings into line with the ocean current as the Pipestream system begins its journey into the depths of the sea in the Amazon delta.

Right: How the fairing system appears on the drill riser. The fairings are closed around the drill riser one at a time as the riser is lowered into position for drilling.

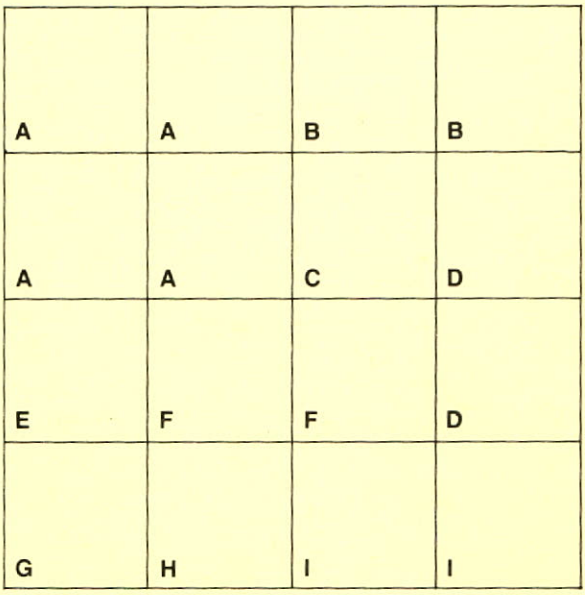


'STARSTRAKE'™

In recent times the hazard of vortex shedding caused by water flow around pipelines and offshore tubular structures has come into sharp focus. The concern is not only future installations but those already existing. If vortex shedding is causing vibration, then the life of the structure is ebbing away due to fatigue.

'STARSTRAKE'™ is a flexible extrusion that, when wrapped around the pipe in a helix, spoils the vortex formation and prevents the vibration. It is a simple enough operation for it to be performed by divers when necessary to fix a critical situation.

Starstrake is fitted to a length of pipe in the Fathom plant at Port Credit, Ontario.



Our cover

A Hydrofoil towing at high speed.
B Starstrake fitted to length of pipe.
C Deeptow II control console.
D Pipestream fairing going into action.
E Part of the system supplied to the Swedish Navy.
F Sonar domes being made for export.
G Thermistor chain handling gear.
H Deeptow II fish housing sensing equipment.
I Scale model helps prove design geometry.

FATHOM OCEANOLOGY LIMITED

1978 Annual Report Information

Directors

†* K. R. OLSEN, Hudson, Quebec
Chairman and Chief Executive Officer, Fathom Oceanology Limited
President, G. M. Gest Ltd. & Subsidiaries,
Vice President, Atlas Construction Limited

* R. L. I. FJARLIE, Maxville, Ontario
Vice Chairman, Fathom Oceanology Limited

* N. E. HALE, Mississauga, Ontario
Vice President and Chief Operating Officer, Fathom Oceanology Limited

† J. E. NORDIN, Montreal, Quebec
Vice President, Finance, Federal Business Development Bank

†* J. B. FOOTE, Campbellcroft, Ontario
Industrial Development Officer and Manager,
Chamber of Commerce, Port Hope, Ontario.

J. M. BERESFORD, Ottawa, Ontario
President, Rideau Shipping Company Limited

† A. H. C. LEWIS, Toronto, Ontario
Vice President, Finance, Datacrown Limited

* Member of the Executive Committee
† Member of the Audit Committee

Officers

K. R. OLSEN, Chairman and Chief Executive Officer
R. L. I. FJARLIE, Vice Chairman
N. E. HALE, Vice President and Chief Operating Officer
J. O. EMPEY, Vice President
D. W. FAIRLES, Treasurer and Financial Controller
R. A. DONALDSON, Secretary

Head office and plant

863 Rangeview Road, Mississauga, Ontario

Subsidiary companies

Fathom Inc., Santa Barbara, California, U.S.A.
President — K. Gardner

Hale & Associates Limited, Mississauga, Ontario
President — N. E. Hale

Transfer agent and registrar

National Trust Company Limited, Toronto, Ontario and Calgary, Alberta

Banker

Bank of Montreal, Toronto, Ontario

Auditors

Clarkson, Gordon & Co., Mississauga, Ontario

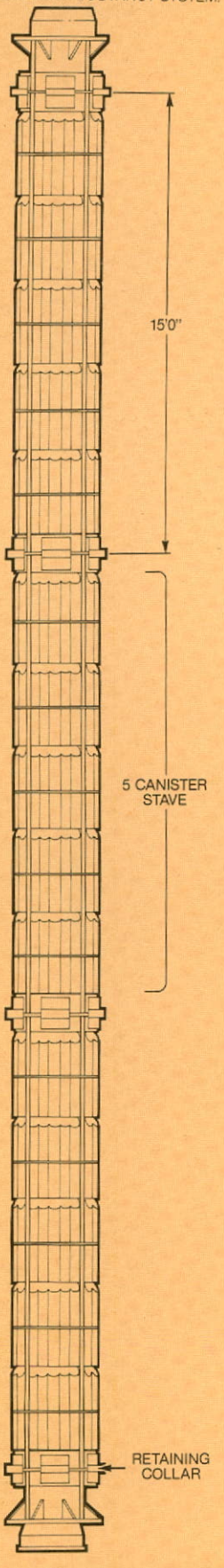
Legal counsel

Blake, Cassels & Graydon, Toronto, Ontario

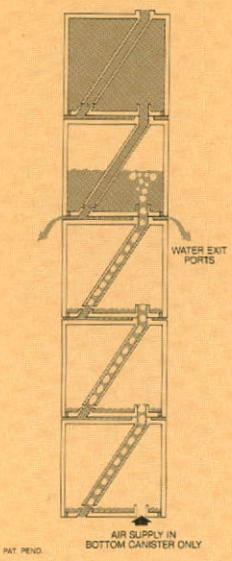
Annual meeting

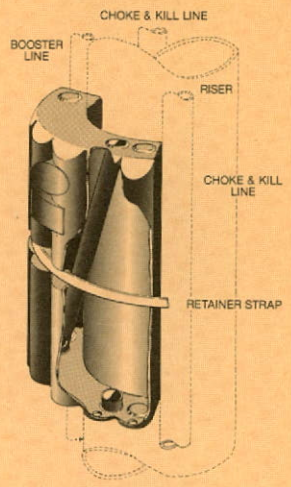
The annual meeting of the shareholders of Fathom Oceanology Limited will be held in the British Columbia Room of the Royal York Hotel, Toronto at 4 p.m. on the 14th day of September, 1978.

50' RISER JOINT ASSEMBLY (TYPICAL)
FITTED WITH CASCAN™ BUOYANCY SYSTEM.



THE CASCAN™ BUOYANCY PRINCIPLE





CANISTER DETAIL

CASCAN™
Drill riser buoyancy system

For deep offshore drilling, it is necessary to offset about 95% of the drill riser weight in order to avoid "impossible" stresses at the drill platform.

CASCAN™ is a new concept in buoyancy systems having pronounced advantages over the traditional foam jacket and the air-can riser systems made by others.

The advantage highlights are:

- Weight of system when stored on deck is only 16% of the foam jackets of the same buoyancy volume. A similar saving relates to the CASCAN over the air-can riser.
- An option (not shown above) permits reflooding of any portion of the riser string prior to well-head disconnect to protect riser stability. Re-establishing buoyancy after reconnection to the well-head is also possible.
- The system will operate at any depth subject only to availability of compressed air supply equivalent to water-depth pressure.
- Impervious to both water absorption buoyancy loss and deterioration due to salt-water corrosion.
- Most efficient of the three systems in terms of buoyancy per cubic volume of space used.
- Competitive price.