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Seaway Snapshot 2001/2002

unique 3,700 kilometre inland waterway, the Seaway brings cargoes to and from 15 major international ports and some 50 regional ports in the industrial centre of North America. A convenient, environmentally friendly, energy-efficient and safe transportation route, the Seaway is a significant economic asset. In 43 years of operation, it has carried more than two billion tonnes of cargo, worth over \$400 billion. Every 10,000 tonnes of general cargo handled by a Great Lakes port contributes more than half a million dollars in local economic benefits. In Canada, the Seaway supports more than 17,000 jobs, in direct and indirect services to the transportation industry, shipping, and the Seaway itself.

Marjorie McCullough, Service Person, greasing the gears that operate the water control valves at Lock 1, Welland Canal.

AKE SUPERIOR

The Seaway Locks

The Seaway proper is a series of 15 locks and connecting channels in two sections – the Montreal/Lake Ontario (MLO) section, and the Welland Canal. Between Montreal and Lake Erie, the Seaway gradually rises 183.2 metres (602 feet), the height of a 60-storey building



above sea level. More than 255,000 vessels from 50 countries around the world have passed safely through these locks. The MLO section has seven locks – five Canadian and two

MONTREAL LAKE

> WELLAND CANAL

ONTARIO SECTION

> American. The Welland Canal links Lake Ontario and Lake Erie with a series of eight locks. The locks and channels accommodate vessels 225.5 metres long, 23.8 metres in beam, and 8 metres in draft.

The St. Lawrence Seaway Management Corporation (SLSMC)

Established in 1998 as a not-for-profit corporation by Seaway users and other interested parties, the SLSMC operates the Canadian assets of the St. Lawrence Seaway for the federal government, under a long-term agreement with Transport Canada. As well as the Seaway locks and channels, the SLSMC is responsible for the Saint-Louis de Gonzague Bridge, Valleyfield Bridge, Townline Tunnel, and all Seaway-related leases and licences.

Our Mission

We pass ships through a safe and reliable waterway system in a cost-effective, efficient and environmentally-friendly manner to meet our customer's transportation needs.

Vision

Our vision is that the Seaway will become the transportation system of choice for those who ship cargoes to and from central North America. To bring this about, the SLSMC and its many partners on both sides of the border have successfully embarked on a course of technical innovation and integrated long-term planning to increase the efficiency, reliability and capacity of the waterway.

2001 Season Highlights

The Seaway opened to navigation March 23, with ice conditions at the entrance to Lake Erie, the Port Colborne harbour, and from St. Lambert to the Iroquois Lock. 24-hour navigation began opening day on the Welland Canal and April 14 on the Montreal/Lake Ontario (M.L.O.) section, where ice had delayed the installation of illuminated buoys. The last ships exited St. Lambert Lock and the Welland Canal on December 24, ending a navigation season of 277 days.

The mild economic recessions in both Canada and the United States led to traffic and revenue reductions for the Seaway in 2001. A less active steel industry reduced movements of related commodities (iron ore, coal and steel imports), and lower Canadian and U.S. grain exports contributed to the decrease. Cargo movements on the M.L.O. section amounted to 30.28 million tonnes, 14.4% (5.11 million tonnes) less than in 2000. Traffic on the Welland Canal totalled 32.48 million tonnes, a decrease of 11.2% (4.09 million tonnes). The 2001 combined Seaway traffic reached 41.71 million tonnes, a decrease of 10.42% from the 2000 total of 46.55 million tonnes.

Financial Highlights

A total of \$22.750 million was spent on repairs and maintenance under the asset renewal program. Operating costs, including staff salaries and benefits, amounted to \$53.216 million and revenues totalled \$64.495 million. The Corporation ended the year with a \$2.118 million excess of expenses over revenue.



Despite reduced traffic and revenue, the Corporation has met its business plan targets for the fourth year in a row, and increased its notional reserve account to \$12.057 million. Accordingly, the mandatory 2% toll increase for the 2002 season will once more be reduced by 1.5%.

Since Seaway traffic levels are affected by larger economic concerns and fluctuations, SLSMC has little control over revenue. The main factor in the Corporation's success in meeting its business plan targets has been control of manageable expenses, an area in which we have consistently done better than required for the last four years.



Historical Traffic Results and Forecasts (million tonnes)



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President's Message



ith the 2001 navigation season, the SLSMC concluded the fourth year of its current five-year agreement with the Canadian Government. And for the fourth consecutive season, the Corporation controlled its costs substantially better than foreseen in the business plan, keeping manageable costs down to 93.6% of the allowable target. Consequently, the Corporation's Reserve has increased by \$3.582 million and this primary measure of our success now stands at \$12.057 million. Again this year we are able to apply a 1.5% rebate to the 2% increase in cargo tolls and ship charges, mandatory under our agreement with Transport Canada. Our full-time equivalent personnel count stands at 619, appreciably fewer than the 664 foreseen in the business plan.

This achievement is all the more remarkable, given the noticeable reduction in vessel traffic last year and a number of extraordinary expenses. Ice conditions persisted until the second week of April on the Montreal/Lake Ontario section, adding to the costs of early opening, and additional security costs were incurred for the Free Trade Area of the Americas Quebec Summit. The August 11, 2001, incident involving the *MV Windoc* and the Allanburg Bridge called for a massive effort in immediate repairs and, together with the events of September 11 only a month later, caused a 269% rise in the Corporation's insurance premiums.

The Seaway, like most North American institutions, has been permanently affected by the events of last September 11. Security has become a significant priority, with operational and budgetary impacts. We have developed joint security plans for the Seaway with all organizations that have an interest, including police forces in Quebec and Ontario, the Royal Canadian Mounted Police, National Defence, Transport Canada, the two Coast Guard organizations, and other stakeholders in Canada and the United States (U.S.).

Asset renewal costs including capital asset acquisitions amounted to \$24.513 million in the 2001/2002 fiscal year, again below the allowable business plan targets. Contracts were generally negotiated for lower prices than budgeted but, in accordance with our agreement with Government, some of these savings were invested back in work already identified but displaced by the accident in the Welland Canal or simply deferred. The excess of expenses over revenues, before transaction costs and the special examination, is \$14.625 million. This illustrates clearly the negative impact the steep decline of traffic has had on the SLSMC, despite a sterling performance in cost control and a navigation season of 277 days, tied for the second-longest in the history of the Seaway, extending from March 23 to December 24.

The Seaway's traffic levels reflect the state of the North American economy, which had been sluggish since the end of 2000, and became increasingly so after September 11. The traffic downturn experienced in the last three months of 2000 continued all through the 2001 season, lowering toll revenues by more than 14% from the previous year, to which the rebate of 1.5% must be added.

Seaway Becoming a World Leader

Challenges notwithstanding, the 2001/2002 fiscal year proved to be eventful and productive. It saw the signing of a new three-year collective agreement with the unions, the completion of a joint job evaluation for pay equity, and important advances in applying information technologies to support the launch of our new Web site and the successful testing of the automatic vessel identification system, among other achievements. Concurrently, new programs such as performance management (SMART) and the process-centred organization have matured and are noticeably improving how the Corporation functions. Indeed, the shift in culture has become more and more evident this year. If the many reviews and surveys we underwent during 2001, conducted at the Government's behest and culminating in a Special Examination, have often stretched the organization to its limits, they also have shown consistently the high degree of commitment and professionalism that Seaway personnel have attained.

In many ways, the Seaway has become a world leader in the use of technology to improve marine transportation. Of two striking examples, the first is Automatic Identification System (AIS). This is a computer-based technology that, linked with the Differential Global Positioning System, permits ship-to-shore and ship-to-ship communications and allows real-time display of vessel location, speed and estimated time of arrival (ETA). At the leading edge of technology, the system will eventually revolutionize navigation in restricted waters. The Canadian and U.S. Coast Guards, as well as the International Maritime Organisation are working to implement this system across their jurisdictions by 2004/2005. That means AIS will soon be in place throughout the whole Seaway/Great Lakes basin, bringing greater safety and greater efficiency to the entire waterway.

The second example of customer service through new technology is the binational

Seaway Web site we launched last year. It has an increasing number of new features and is proving extremely popular, regularly getting over 70,000 hits a month. The site has become the single most comprehensive source of information for commercial navigation in the Seaway System, and we have expanded it to provide one-stop shopping for current and potential customers with a new range of online business services. We have also introduced an e-mail-broadcasting feature to distribute Seaway notices and other information to users electronically, rather than by mail.

A Call for Long-term Change

Nevertheless, despite such achievements, the coming year is likely to prove the most demanding yet for the Corporation – because we need to set some far-reaching changes in motion. The St. Lawrence Seaway is a key continental resource, strategically located, yet one that is under-utilised partly because of an outdated infrastructure. While we can expect traffic to increase somewhat as the economy picks up speed, the seasonal nature of the waterway, the size and age of our locks and the comparatively shallow depth of our channels will continue to present obstacles.

Lake St. Clair and the Welland Canal are currently limited to a 27' depth, while other



channels in the system can accommodate vessels up to 30'. There is no doubt that thirtyfoot channels throughout would substantially improve the efficiency of the existing Great Lakes St. Lawrence Seaway (GLSLS) system and fleets.

The length of our navigation season is another limiting factor. Apart from navigation under winter ice conditions, which could be solved, given the progress of technology like AIS, the system's aging infrastructure needs major annual maintenance. Thus the age of our locks contributes to limiting our navigation season. And their size, in the long term, will continue to restrict the size of vessels we can accept, even if we increase channel depth. The trend today is to larger and larger ocean-going vessels, and our market share is consequently shrinking.

The maintenance of the Seaway is already becoming more difficult and will become increasingly costly in the future. Recent studies already recommend lock replacement instead of ongoing maintenance of the aging structures. Clearly, some major investment decisions have



to be made soon, and if they are to be wise decisions, they must take into account a great variety of economic, environmental, financial and engineering factors.

We have undertaken channel maintenance work to increase vessel draft throughout the system by 3" in 2003, while still leaving an adequate safety margin; every inch of additional draft increases the load capacity of a Seaway-max vessel by 100 tonnes. At the same time, Seaway ports are looking to increase

their capacity as well. The long-term strategy would be to modernize both channels and ports throughout the entire system to accommodate larger and larger ocean-going vessels. We have a working group researching the business case for season extension using the set opening and closing dates of March 25 and January 15 at the Soo Locks. Our ultimate goal has to be 12-month navigation over the entire system.

We are also proceeding with other initiatives to attract more customers. Work continues with the Maritime Associations, the Waterway Strategic Issues Forum (WSIF), and other stakeholders, from shipowners to terminal operators, to pilotage and Coast Guard organizations, to government departments, to increase efficiency and develop a new vision. The report *A 20/20 Vision for the Future* describes the major goals to be achieved, identifying the key players. And the WSIF complemented this work with action plans to support some of the conclusions.

A steering committee, under the umbrella of the Chamber of Maritime Commerce, is coordinating implementation of the WSIF recommendations. A symposium last summer in Thunder Bay defined some of the impediments and inefficiencies at the Port and drew up a mandate for a Logistics Study on virtual 24/7 operations, and improving terminal efficiency and inter-agency co-ordination, among other issues.

But we have reached a watershed of sorts in terms of small-scale and short-term improvements. To remain competitive in the long term, we will soon need to make changes radical enough that they must be integrated with upgrades to the rest of the Great Lakes/St. Lawrence System. The Seaway has potential to contribute much more to the Canadian economy and national interests than it does now. However, we cannot approach decisions from a narrow corporate or even national viewpoint. Anything we do on the Seaway has implications for the whole system; and the quality and prospects of the whole system inevitably affect our own operations. The system-wide approach is essential, and long-term, carefully planned innovation is the key.

And innovate we must. The principal stakeholders in marine transportation on both sides of the border must look at and address numerous duplications of service to reduce costs and increase competitiveness. And we must, together, form a co-ordinated plan to increase the accessibility and marketability of the entire system. Our focus in the coming year will be to lay the groundwork for the necessary actions. Much of what we will be able to do will be dictated by our next five-year business plan.

Towards a New Planning Cycle

Seaway operations are guided by a five-year business planning cycle, based on our agreement with Transport Canada. The business plan sets specific targets for operating and asset renewal costs, as well as anticipated revenues. Since commercialization in 1998, we have consistently progressed in making the Seaway more business-like and in containing our costs. In the first five years, our emphasis was on technology, e-business and initiating a system-wide approach.

The primary goal of the next business plan, which will take effect in April 2003, will have to be the sustainability of the system. Senior management has developed objectives and strategies for the renewal of the Management Agreement with Transport Canada that will set self-sufficiency as the Corporation's principal objective over the next five years.

An exploratory meeting with Transport Canada (TC) tested the principles and philosophy that would govern the upcoming plan and agreed on the negotiation process and timetable. TC officials are receptive to the idea of self-sufficiency and endorse a continuing role for the Department in sharing the funding for business development and long-term planning projects like modernizing navigational services. Transport Canada is also undertaking due diligence audits on various aspects of our proposal through Consulting and Audit Canada.

Research Can Show the Way

It has long been apparent that every factor in the Great Lakes/Seaway System is dependent on every other factor, and cannot be considered in isolation. I cannot stress enough that the Seaway is a binational waterway, and we must be concerned with what happens in the entire Great Lakes basin. It is essential to increase and strengthen co-operation among all organisations involved in this larger system.

To help achieve this goal, we hope to launch an important study this year on the modernization and future governance of all marine navigation services in the system. These are the services provided by the Canadian and U.S. Coast Guards, the Laurentian and Great Lakes Pilotage Authorities, as well as the Canadian and U.S. Seaway Corporations. Also par-

ticipating in the study will be

Transport Canada and the Department of Fisheries and Oceans. What we hope will result is a c o - o r d i n a t e d, s t r e a m l i n e d approach that cuts out duplication and unnecessary costs, and provides efficient joint service on both sides of the border, throughout the entire waterway basin.

To remain competitive... we will soon need to make changes radical enough that they must be integrated with upgrades to the rest of the Great Lakes/ St. Lawrence System.

We are also recommending that Canada take on a major role in the Great Lakes Navigation Study. This is a bi-national multiphase review, presently managed by the U.S. Army Corps of Engineers (USACE) under Congressional directive, of the feasibility of improving commercial navigation on the entire Great Lakes/St. Lawrence Seaway system, including locks, dams, harbors, ports, channels, and other related features. The geographic scope of the study ranges from Duluth on the west to Montreal on the east.

The SLSMC and the Saint Lawrence Seaway Development Corporation worked closely with the USACE in the first phase of the study, the Reconnaissance Phase. So far the research suggests that a modernized Seaway could generate important increased economic development in central North America. The next phase of research would consist of engineering and economic studies to determine the feasibility and cost of simply maintaining existing structures for an extended period. This "50-Year Plan" would establish best practices for the maintenance of the Seaway and dictate the timing when structures should eventually be replaced and their optimum size. The remaining feasibility effort will investigate thoroughly the economic, social and environmental effects of large and small-scale capital improvements and ecosystem restoration. The research will examine everything from small changes, such as better lock maintenance, to radi-

The research will examine everything from small changes to radical restructuring, such as building entirely new and larger locks.

entirely new and larger locks.
 The results will include engineering and cost estimates for maintenance of the existing system and future costs for various proposed improvements to the infrastructure; justification of proposed improvements in terms of economic benefits; and an environmental impact assessment of the various

cal restructuring, such as building

alternatives, the potential mitigating measures and their costs.

The SLSMC strongly recommends that Canada take the lead in continuing this study as the most practical method of arriving at realistic information for enlightened decisions on future investments in cargo marine transportation. Provision of equal funding will give us equal say, and better control of input to the study, along with its output. While the USACE brings engineering expertise to the project, SLSMC can bring the business point of view to the table, represent a wide variety of users, and ensure a balanced approach. A strong Canadian initiative here will ensure that all alternatives are properly evaluated in a binational forum.

We believe Canada's participation is a wise investment. The Seaway needs more work, and it needs a good long-term plan to ensure that money is spent to the best advantage. This study offers the opportunity to achieve such a plan, one that is harmonized to conditions and needs on both sides of the border.

The strategic importance of studies like these to the future of the Seaway cannot be over-emphasized, and neither can the joint Canada/U.S. participation we strongly recommend. This is vital if truly efficient transportation is to continue to serve the economy of the heartland of North America with the right balance between commercial and public interests.

A Final Word

Having decided to resign from my position at the end of the next fiscal year, I have already launched the process for identifying the new President and CEO who will lead the Corporation through these coming, exciting years. I believe that together we have prepared a solid foundation from which the new Chief Executive will be able to guide the SLSMC even further along the path of success.

I would be remiss not to express my heartfelt thanks to the Members of the Board for their active counselling, to my colleagues on the Management Committee for their unswerving support, dedication and leadership and, most of all, to all SLSMC employees for their co-operation and unfailing efforts. Your backing for the past four years has been valued and appreciated.

Guy Véronneau

Operational Report

Goals and Achievements 2001/2002

The Corporation worked on 46 key projects related to the strategic objectives of the present 2001/2004 Strategic Plan, of which 16 were identified as "must" or "priorities". These are listed in the table below. A number of these are multi-year projects, spanning more than one fiscal year. The four projects that fall into the "must" category include developing a strategy and carrying out negotiations for the next 5-year Business Plan, follow-up on the Special Examination, participation in the U.S. Army Corps of Engineers Great Lakes Navigation Study – Reconnaissance Phase and implementation of a transition program for the future CEO, part of the succession planning program.

Other high-priority projects deal with issues such as strategic operational staffing, managing

attendance and training of management and supervisory personnel in leadership development and change management. We also plan an Operations Centre functional study, which would include such elements as remote operation of bridges and infrastructure monitoring. The budget makes provisions for exploring new tools in operations, as well as for AIS integration and deployment. Continued development of the Web site and introduction of other new e-business opportunities are ongoing.

In addition to monitoring goal-related projects, the Corporation regularly assesses its performance using a wide range of computerized performance evaluation measures developed and refined over some time. These include statistics on vessel transit times, vessel incidents, the employee safety record, response time for various customer transactions, and many others.

Priority Projects

Lock crew Reorganisation

Strategic Operational Staffing **Operations Centre functional study** Manage/reduce absenteeism Special examination (required by law) Develop negotiation strategy for next **Business** Plan New tools for tie-up Develop strategy for ice management Web-site enhancements and e-business applications development **AIS** integration Participate in USACE study (Reconnaissance Phase) Develop model for new tariff structure Develop and implement Succession Plan Change management and leadership development Design/implement compensation program based on job evaluation Union contract negotiations

Status

Business Case completed; implementation postponed, pending safety-related decisions In progress In progress In progress Completed

Completed In progress Completed

Completed In progress

Completed Completed Completed In progress

Completed Completed

Information Technology & Telecommunications (IT&T)

R s in most corporations, IT&T services are of strategic importance to the efficiency of the SLSMC. Information technology systems have now become such indispensable tools for the Corporation's daily activities that IT staff have been consolidated into one group with its own offices at corporate headquarters and regional support facilities. The group monitors LAN/WAN efficiencies, server and application readiness, and desktop environments, maintains the Web site and the corporate Intranet, and provides Help Desk services for all employees.

An updated maintenance and support approach was required for effective management of the many systems deployed throughout the organization, which are ever increasing in complexity. IT&T developed an organizational model for its services, based on the principles of customer focus, best practices, and self-measurement and evaluation.

Customer Focus	Service level agreements have been developed to deliver the required levels of customer service to both internal and external "customers", e.g. the Traffic Management System, E-business users, the Web site.
Use of Best	Ongoing identification of
Practices	industry standard best
	embedded into core policies
	and procedures.
Self-	Use tools to measure
Measurement	operational activities and
	effectiveness (for instance, the
	Help Desk system); work in
	continuous improvement
	mode to ensure staff always
	has access to the most reliable
	and useful systems.

Telecommunications

During the last year the telecommunications services group reviewed the corporation's telecommunications infrastructure. As a result of the study, the Corporation advanced the migration of the telecommunications network to the ATM (Asynchronous Transfer Mode) technology. The ATM network, being a packet-switching technology, is capable of integrating multiple types of traffic, including voice, video and data.

Upgrading the telecommunications infrastructure has brought a number of benefits:

- Flexible, simplified management of backbone requirements
- Improved reliability and redundancy
- Scalable, high capacity bandwidth
- Improved application performance at reduced cost
 - Higher speed, higher volume
 - Larger variety of network applications possible
 - Higher quality of service
- Consolidation of computing resources
- Lower access costs (\$ per kilobit)

Also in the past year, the need has increased for employees working outside the Corporation's offices to have secure access to centralised corporate data. To create business efficiency and reduce costs, a Virtual Private Network (VPN) has been implemented. It provides a relatively inexpensive means of extending the corporate networks out to mobile/ remote workers, replaces expensive leased lines with site-to-site communication, and permits secure communication with business partners.

Traffic Management System (TMS)

The TMS has been updated to integrate a new geographic information system (GIS). The selected GIS is a commercial, off-the-shelf product, which supports a high performance mapping/graphical interface in addition to various types of geographic mapping standards. This update to TMS improves system performance, resolves outstanding deficiencies and lowers life cycle costs while increasing flexibility.

Automatic Identification System (AIS)

The ship-to-shore and ship-to-ship communications system with real-time computer display of vessel location and speed is well on the way to implementation. Transponders were procured in February 2002, and antennas and other equipment at shore stations were to be installed by the end of June 2002. Tests of the signal coverage were completed with excellent results, and operational testing will begin July 2002. Various tests and trials of shipboard AIS/ECDIS units by carriers will occur during the July to December 2002 period.

Mandatory AIS carriage on the Seaway has been postponed to opening day of the 2003 navigation season at the request of Seaway users, to give them time to obtain transponders and equip their ships during the off-season.

The SLSMC will partner with other agencies, such as the Canadian and U.S. Coast Guards and Transport Canada to extend AIS coverage to the entire Great Lakes and eventually to the lower St. Lawrence River, making ours the largest application of AIS to an inland waterway anywhere in the world. AIS will also be integrated into the Seaway binational Web site, permitting subscribers access to up-to-theminute position information and other data about the progress of their vessels through the waterway.

Web Site and E-business

The goals of the Seaway's binational Web site, launched last year, were to create a comprehensive, single source of information for commercial navigation on the Seaway System, and to provide one-stop shopping for current and potential customers. The site was built in three releases, and with the third release this spring is now fully interactive.

The site is innovative, and makes effective use of leading-edge technology for easy use and visual appeal. Release 1 provided static shipping and navigation information, environmental data with water levels and wind speeds, and links to every organisation, port, and government agency involved with the Great Lakes and Seaway in both Canada and U.S. Release 2 added real-time information and a search engine.

The current and third release brings ebusiness applications to a new level for the



marine industry. The cargo-matching feature allows Seaway customers with empty vessels to find cargoes, or shippers to find convenient vessels. A cost calculator produces instant customized cost estimates for point-to-point shipping via the Seaway. Authorized ship-owners, operators or agents also have access to their real-time vessel transit information (fed from AIS), as well as on-line access to their account information. They can also complete and file all pre-clearance and transit declaration forms on-line, and may be able to eventually carry out electronic credit checks and payment transfers.

While access to the Web site and navigation information is free, access to the e-business pages will be through a paid subscription plan. All applications are now ready for on-line implementation. Our Web traffic consists primarily of commercial users originating from over 85 countries.

The new e-business applications allow Seaway customers to complete on-line filing of pre-clearance and transit declaration forms, and provide access to up-todate account information. This information is restricted to authorized subscribers.





The 2001/2002 Navigation Season

The Basics

- Seaway opened to navigation March 23, 2001
- Ice conditions at the Lake Erie entrance and in Port Colborne Harbour until April 7, on Montreal/Lake Ontario (M.L.O.) section until April 14
- 24-hour navigation began opening day on Welland Canal, April 14 on M.L.O.
- Draft increase from 7.92 to 8.0 M in effect on Welland Canal for entire navigation season, from April 9 on the M.L.O.
- Navigation season lasted 277 days
- Vessel transits:
 M.L.O. section: 2,588 vessels, compared to 2,975 in 2000; average demand 9 vessels per day
 Welland Canal: 3,389 vessels,

about 40 more than 2000; average daily demand was 11.9

- Seaway remained open beyond announced closing date due to traffic demand (17 vessels transited December 21–24)
- Favourable weather conditions allowed waiver of surcharges for December 21 to December 23, with surcharge for Dec 24

remaining in place; no special agreements were needed for late transits

• The last vessel (*Pétrolia Desgagnés*) exited St. Lambert Lock on December 24

Cargo Traffic Highlights

Mild economic recessions in both Canada and the United States led to significant traffic and revenue reductions in 2001. A less active steel industry reduced movements of related commodities (iron ore, coal and steel imports). Lower Canadian and U.S. grain exports contributed to the traffic decrease.

Cargo movements on the M.L.O. section amounted to 30.28 million tonnes, a 14.4% or 5.11 million tonne decrease from 2000. Traffic on the Welland Canal totalled 32.48 million tonnes, a decrease of 11.2% or 4.09 million tonnes.

Combined Seaway traffic reached 41.71 million tonnes, a decrease of 10.42% from the 2000 results of 46.55 million tonnes.

Commodity Data

Grain

- Poor harvests, strong competition decreased Canadian grain traffic to well below Seaway's five-year average
- M.L.O. decrease: 10% (0.68 million tonnes) to 6.11 million tonnes
- Welland Canal decrease: 9.7% (0.67 million tonnes) to 6.21 million tonnes.
- American grain traffic affected by fewer ocean vessels in the Lakes and poor harvests

Combined Traffic by Commodity 2001/2002





- M.L.O. decrease: 12.2% (0.70 million tonnes) to 5.02 million tonnes
- Welland Canal decrease: 9.6% (0.57 million tonnes) to 5.41 million tonnes
- Total grain traffic decreased by 10.7% to 11.16 million tonnes on the M.L.O. and by 9.5% to 11.65 million tonnes on Welland Canal

Iron Ore

- Less active American steel industry reduced movements from Labrador mines to American facilities in upper Great Lakes by 36.3% (1.40 million tonnes)
- Movements to Hamilton from Labrador mines increased by 0.70% (34,280 tonnes)
- Decrease of 71.0% (661,900 tonnes) in shipments from Great Lakes mines to Hamilton
- Shipments to Nanticoke increased by 85.6% (203,600 tonnes) for a total of 441,400 tonnes
- Imports through Quebec City decreased by 65.4% (601,600 tonnes)
- Total ore traffic on the M.L.O.: 8.38 million tonnes, a decrease of 17.5% or 1.78 million tonnes.
- Total ore traffic on the Welland Canal: 3.49 million tonnes, a decrease of 43.1% or 2.64 million tonnes.

Coal

- Coal movements increased to compensate for supply difficulties in 2000 and to fill additional demand by industries along the St. Lawrence River and Maritimes
- Traffic increased by 21.8% (73,000 tonnes) to 0.41 million tonnes on M.L.O. and by

10.5% (458,000 tonnes) to 4.8 million tonnes on Welland Canal.

Other Bulk

- Despite unfavourable economic conditions, there was a small increase in bulk traffic through both sections
- M.L.O. increase: 0.2% (15,000 tonnes) to 7.30 million tonnes, with petroleum products, gypsum and salt rising, all other bulk commodities decreasing
- Welland Canal increase: 657,000 tonnes (6.8%) to 10.34 million tonnes; petroleum products, salt, cement and stone increased; all other bulk products decreased

General cargo

• Lower import levels caused decreases of 40.7% (2.06 million tonnes) on M.L.O. and 37.5% (1.32 million tonnes) on Welland Canal, for total traffic of 3.00 and 2.21 million tonnes respectively.



Partnership in Action for Better Customer Service

We've talked to our customers to find out what they expect from us and, together with SLSDC, we put in place some Seaway-wide level-of-service objectives. We have performance measures for all that we do, from transit time to how long it takes to respond to a customer's request for information, and everything in between. Monitoring the results against our level-of-service

Traffic to/from Canada 2001/2002

From Foreign 8% To Foreign 10% Within Canada 55% To U.S.A. 27%

Traffic to/from U.S.A. 2001/2002

From Foreign 18% To Foreign 19% To Canada 63%



Ocean-going vessels

goals tells us where we need to put in more effort to keep customers happy.

Also with our American partners, we have a plan to help us communicate better and more frequently with customers, and an organised complaint management system that is getting good reviews from Seaway users.

We began last year to implement the three-year business development plan we worked out jointly with SLSDC, to promote the Seaway through trade missions and at trade shows and symposia in North America and abroad. We're working closely with the Great Lakes Cruising Coalition, and together we are



Total combined traffic to/from Canada and the U.S.A. (million tonnes)

Inland vessels

Other vessels



having some success in attracting more cruise ship traffic to the Seaway/Great Lakes system and its ports.

Finally, SLSMC and its partners regularly invest in research to identify areas where we can improve services to Seaway users and seek new customers. In the works for 2002:

- a market growth potential study that will evaluate the economics of the Seaway system and identify new opportunities
- the latest in our series of competitiveness studies, to see how the Seaway stacks up against road and rail for various types of cargo on selected routes

Opening the Seaway to Heavier Vessels

With the participation of Transport Development Corporation and Université Laval, Fleet Technology completed a detailed squat study in 2001 to establish the feasibility of increasing Seaway draft. "Squat" is the extra depth to which a ship sinks into the water at speed. Along with the final report came a model named the "Squat Machine", which pre-



The C. Columbus, one of several new cruise ships plying the Seaway and Great Lakes to the delight of passengers

dicts the average squat at speed for five classes of ships in both the canal and lake sections of the Seaway.

The study concluded that on the lakes and open waters, the ship squat measure is very close to the standard the Seaway is presently using, while in some areas of the canals, squat at high speed can infringe on the 30 cm additional depth needed for ship manoeuvrability. At the current draft, the squat allowance leaves an adequate safety margin to compensate for variations in Seaway bottom. Draft cannot be increased without changing the channel condi-



tions, either by reducing speed in shallow areas or cleaning up the channel bottom, or both.

The SLSMC has begun preparations for achieving a draft increase to 26'6" (8.05 m) in 2003. Channel maintenance work to level high spots in the Hamilton and International Tangents will be carried out in the fall; the South Shore Canal and areas of the Welland Canal will also be cleaned up. We are looking at the feasibility of dredging to increase channel depth in the South Shore Canal, which would bring all Seaway channels to the same minimum depth.

In addition, the squat curves developed by Université Laval will be incorporated into the Seaway's water level spreadsheet to identify areas where a ship at deeper draft would be required to reduce speed. If favourable water levels continue in the rest of the system, and the other work is completed, new draft parameters could be introduced with the implementation of mandatory AIS in the 2003 season. AIS must be in place to monitor and enforce ship speed reductions in the shallower areas.

Vessel Self-Inspection

At the opening of the 2000 season, SLSMC introduced a program that allows ISO/ISM-certified companies to carry out their own inland vessel inspections for Seaway requirements. SLSMC ship inspectors carry out random spotchecks of self-inspected vessels throughout the season.

During the 2001 navigation season, four companies operating 74 ships participated in the self-inspection program. The Seaway was also used by 19 non-participating inland ships.

> Two inland companies, however, have suggested that, despite the convenience of the program, the costs involved in self-inspection place them at an economic disadvantage in comparison with non-participating companies. SLSMC is reviewing the program and considering a change in inspection frequency and procedures to provide a level playing field.

Factors used to establish under keel clearance requirements

Lock Operations

New tie-up and cast-off procedures intended for greater efficiency have been developed and tested. Safety concerns about the new procedures were raised by the Union, and SLSMC invited Human Resources Development Canada (HRDC) to observe lock operations first hand in Maisonneuve and Niagara regions. The site visits took place in April and May 2001, and were attended also by inspectors from Transport Canada (TC) Marine Safety.

Following the site visits, HRDC issued a Safety Direction covering the availability of safety equipment, rescue services, rescue training, and structural upkeep as it affects employee safety. The SLSMC Safety Committee undertook an audit of all locks and lock walls to identify and deal with any uneven surfaces, and provision was made for life jackets, which employees working on the locks are to wear at all times. The SLSMC has appealed the direction for ladders in the locks and the requirement for a signaller during mooring and casting off. SLSMC is proposing alternate methods of meeting the need of ladders, and testing a new tow hook that could ensure the mooring procedure is safe regardless of the number of persons on the lock crew.

Maintenance and Asset Renewal

Asset Renewal Plan

The five-year Asset Renewal Plan (part of the Management, Operations and Maintenance Agreement with the government) calls for a total expenditure of \$126 million to safeguard day-today operations and the long-term integrity of the Seaway's infrastructure and equipment. \$24.5 million was spent in 2001/02, the fourth year of this plan, bringing the expenditure so far to \$99 million or just under 80% of the overall total.

As part of preparations for the next fiveyear business plan, SLSMC has identified its future asset renewal requirements to ensure that the objectives of both the Corporation and the government are met. Among other issues, we have identified the need for major rehabilitation of the Montreal and Beauharnois locks towards the end of this decade due to alkali-aggregate reaction in the concrete. A feasibility study is also underway to evaluate hydraulic options in place of further rehabilitating mechanical equipment across the system. Hydraulic equipment could be more cost-effective as well as being simpler and safer to operate and maintain.

Discussions with Transport Canada (TC) will finalise the new plan over the coming year. In the meantime, TC has hired Consulting and Audit Canada to carry out a due diligence review of our proposed plan, broken down into specialised areas such as geotechnical, concrete restoration (alkali-aggregate reaction), bridges, hydraulics, breakdown and equipment operation.

Reliability and System Uptime

The Reliability Index is a measure SLSMC has used for the last four years to track the condition of the infrastructure. The index improved from 3.01 last year to 3.08 this year, showing continued progress under the management of the Corporation.

While the Reliability Index deals with the longer-term performance of the system, we have put in place a short-term system performance measure, based on the time lost due to equipment breakdown for the current season. This uptime indicator improved from 99.58% in 2000/01 to 99.68% in 2001/02.

A task force was active in the past year to re-map our project and contract process, aligning it to the re-organised infrastructure maintenance process organisation. The improved process will streamline project planning, budgeting and management, leading to higher efficiency in asset renewal. Building on the success of the project process, another task force was launched in the latter part of last year to review the internal maintenance process. The team is expected to complete its mandate by late fall of 2003.

Bridge 11: Swift, Effective Response to Emergency

In the evening of August 11, 2001, the freighter *Windoc* came into contact with Bridge 11 on the Welland Canal, causing substantial damage both to the ship and to the bridge. The *Windoc* came to a stop some 700 metres downstream from the bridge. Bridge 11 was disabled and left in a near-lowered position, blocking ship passage and heavy road traffic, some 11,000 vehicles a day.

With excellent co-operation from everyone concerned, SLSMC was able to reopen the Canal to ship traffic within 48 hours. Emergency repairs enabling the bridge to be raised and lowered safely were completed in four days. To reduce hardship locally, SLSMC and the insurance company agreed to make the final bridge repairs immediately.

The job was complex and difficult, demanding meticulous planning, timing and execution. Among other constraints, the bridge had to remain operational to permit workers, materials and equipment to reach the work area, while not interrupting ship traffic. To maintain bridge balance, all concrete, steel, debris, equipment, scaffolding and other materials removed or brought on the bridge had to be weighed. The lightweight concrete used in the original structure had to be replicated through a series of tests.

The repairs started on Tuesday, October 9. Vessel traffic was delayed only twice during the five weeks of construction by approximately one hour, for placement of concrete and asphalt on the deck. A total of 15 tonnes of structural steel, 25 m³ of lightweight concrete, 3 tonnes of reinforcing steel, 10 tonnes of asphalt, and 220 m² of steel decking were used.

The work was completed a full week ahead of schedule and the bridge opened to road traffic on November 16, 2001. SLSMC thanks Diamond Stonebridge Contracting, Blenkhorn-Sayers Structural Steel, the other

Damages to Bridge 11



trades and the Niagara Region staff for the high level of skill, teamwork and dedication shown on this project.

Winter Works Program

Each winter, major components of the Seaway infrastructure are overhauled during the elevenweek shutdown period. Unlike the winter of 2000, the weather had a positive influence on costs and schedules.

More than 40 projects were completed by contract over the course of the winter, at an under-budget cost of \$15 million. Seaway employees carried out a number of winter works projects as well, in addition to regular preventive maintenance and inspections.

Major Winter Projects Maisonneuve Region

- Gate quoin rehabilitation and re-tensioning of gates at Côte St. Catherine Lock
- Grouting of cracks in Beauharnois Locks
- Repairs to piers and counterweights of Bridges 2 and 3
- Replacement of ice flushing valve at Côte St. Catherine Lock
- Replacement of electric control panels at St. Lambert Lock

Niagara Region

- Bank stabilisation in Reach 2 and Long Reach
- Gate painting and repair at Lock 8
- Concrete repair to lock wall at Lock 4
- Mechanical rehabilitation of lock gates and valves
- Rehabilitation of mechanical drive of Bridge 21
- Replacement of substations at Lock 1 and Bridge 11
- Replacement of operator interface system on the Flight Locks

System Security and Emergency Planning

In March 2001, SLSMC completed a corporate threat and risk assessment. The report identified the areas where protective measures should be applied and priorities for the development of such measures, as well as defining the manageable level of risk for the Corporation.

As a result, a corporate security policy was formulated: "The St. Lawrence Seaway

Management Corporation is committed to maintaining a safe and secure working environment, which is essential to the overall success of the Corporation. Therefore, the SLSMC will take every reasonable measure to ensure that risk to employees, information holdings and physical assets are minimized." To follow through on the policy, a series of appropriate and cost-effective safeguards were to be implemented over a fouryear period; however, the events of last September 11 have accelerated that schedule.

The security of the ships transiting the system has emerged as an important concern since last fall. All the key system stakeholders and appropriate security organisations – both Seaway Corporations, Transport Canada, Transport Quebec, the U.S. and Canadian Coast Guards, the pilotage agencies, the police organisations, and many others – have together developed a comprehensive marine security plan for the system.

A non-marine enhanced security plan, with a budget estimate of \$4.7 million, was submitted to the government outlining our land based security approach. The recommendations were presented to Transport Canada who has a mandate to co-ordinate these efforts with various federal departments and agencies. The December federal budget provided a level of funding for such measures; the assessment with central agencies is under review.

Among other activities, SLSMC established a Corporate Security Committee, which reviewed and updated security guidelines and developed corporate standards for signage, fencing, and closed circuit cameras. Access control has been upgraded in all locations and a disaster recovery plan has been initiated, along with a security awareness program for employees. Procedures for dealing with biological agents and bomb threats are in place. Other projects underway include site mapping, a fencing upgrade, a security camera upgrade and a guard tour tracking system.

Environmental Projects

The major achievement on the environmental front last year was the adoption of new measures developed jointly with SLSDC to guard against the introduction of aquatic nuisance species in the Great Lakes/Seaway System.

All vessels using the Seaway must now comply with one of the following codes:

- the *Shipping Federation Code of Best Practices for Ballast Water Management* (ships that have operated outside the Canada-U.S. exclusive economic zone)
- the Voluntary Management Practices to Reduce the Transfer of Aquatic Nuisance Species Within the Great Lakes by U.S. and Canadian Domestic Shipping of the Lake Carriers Association and the Canadian Shipowners Association (all other shipping)

SLSMC's *Practices and Procedures* have been amended accordingly, and compliance will be monitored.

Administrative and Human Resources Matters

Labour Agreements

Collective agreements were reached with the aid of an HRDC conciliation officer and signed on November 26, 2001, with the Canadian Automobile, Aerospace and Transportation Workers, representing the Operational and Maintenance and the Supervisory Group Locals of the Seaway. The three-year agreements covering these 500 employees extend to December 31st, 2003.

During these negotiations, new salary and wage scales were introduced, based on the



St. Lawrence Seaway Employees (Full Time Equivalents)

Joint Job Evaluation system developed in the previous years. In line with the Seaway's succession plan, it was also agreed to place more emphasis on promotion from within the Corporation. A technical trades subcommittee will be informed of upcoming retirements within the Seaway Trade ranks and will explore employee development avenues.

Job Evaluation

During the past three years, a nine-member Joint Job Evaluation Committee, with representation from operations and maintenance, supervisory and salaried groups, led by an experienced classification and compensation consultant, developed a classification system for the SLSMC. When the evaluation project was completed, a consulting firm specializing in the field of compensation was retained to develop competitive salary scales.

The new classification levels and wage scales took effect on January 1, 2002.

The ratings of some jobs have changed as a result of the evaluation project. Employees whose jobs have been reclassified at a lower level will retain their previous compensation and will benefit from future general increases while they remain in those positions. In addition, a review process has been put into place for employees who have concerns about their new job classification. If criteria for a review are met, information is gathered from employees and the Joint Job Evaluation Committee rules on the rating.

SMART Performance Management

The SMART performance management system is one of the most important management tools the Corporation uses. It aligns work planning, execution and improvement activities with the organization's business process approach. Helping managers to learn how to make SMART work continued in 2001/02. Emphasis has been placed on applying the systematic opportunity SMART provides for supervisor-employee dialogue, setting directions and expectations, and the follow-up loop of recognizing achievements and constructively discussing improvements. In March 2002, a survey of all SMART program stakeholders (managers, supervisors, professionals) indicated that over 80% of respondents "agreed or somewhat agreed" that the SMART process provides a structure that increases employee understanding of and contribution to achieving corporate objectives and goals. This indicates that we are on the right track in continuing to integrate the process into our management practices.

Succession Planning

Some 25% of Seaway employees will become eligible to retire between now and 2005. Succession planning, naturally, has become one of the Corporation's chief priorities.

The principal objective of the succession

YEAR OF REVIEWS, TESTS AND REPORT CARDS

Our agreement with the Canadian Government requires comprehensive reviews of our operations before the end of the first five-year business plan. In the past year, therefore, SLSMC has co-operated with various government-ordered audits and examinations.

We are proud to say that the reports have been, on the whole, very favourable. The Acres technical review for Transport Canada generally recognized the effectiveness of our systems and the expertise of our personnel. And KPMG's comprehensive audit of all aspects of our operations identified no major deficiencies.

Of course, there are always areas for improvement, and we have received a great deal of useful input for our new five-year plan. We'll be putting more thought into risk management, for instance, which will improve our strategic planning process as well, and we will also make a priority of succession planning, training and career development. planning program is to ensure that the Corporation will have, at all times, at least one employee in its ranks suitable for promotion into each key position when it becomes vacant. All of the key positions have now been identified, in consultation with the various management teams, as have potential successors to these positions. We are now proceeding with individually tailored training plans, and looking at integrating succession planning for the Trades into our program as well.

Succession planning remains a dynamic and continually evolving process; our plans are revisited each year to ensure they remain



responsive to changing circumstances and the changing needs of the Corporation.

Employee Health and Safety

The frequency rate for accidents in 2001 is slightly above the results of calendar year 2000. In general, the severity level for the year remains near the level of the previous two years.

There was an increase in lost time accidents in the Maisonneuve Region; however, the Niagara Region continued to improve both in terms of frequency and severity. It reported three lost time accidents for the year, while Maisonneuve reported eight during the same period. No lost time injuries were reported at Head Office during the year.

In an effort to lessen the number and severity of accidents, a number of activities have been evaluated and a new Safety program developed for 2002. The Safestart program focuses on the individual worker's behaviour in completing daily tasks. The program was tested in the Maisonneuve Region and will be implemented across the Corporation. Other initiatives will continue and additional training sessions are planned for areas with unsatisfactory records.

A number of new health and safety policies, including investigation procedures for accidents/incidents and work refusal related to safety conditions, have been completed and in the majority of cases alignment has been achieved between operating groups in the two Regions.

Governance

he St. Lawrence Seaway Management Corporation is governed by a nine-member Board, which meets as frequently as necessary to set and oversee the direction of the Corporation and review financial results. Their ultimate responsibility is to secure the long-term viability of the SLSMC, and of the Seaway as an integral part of Canada's transportation infrastructure. To this end, the Board ensures that our operations will establish credibility with customers and the Saint Lawrence Seaway Development Corporation by providing high quality; efficient service to all users without preference, fostering the competitive advantages of the Seaway, and ensuring a safe environment for our employees and customers.

As part of its stewardship of the Corporation, the Board has responsibility for strategic planning, risk management, succession planning, communications policy, and the integrity of the Corporation's internal control and management information systems. It also defines the limits of management's authority, accountability, and rules on any activities or expenditures, which vary from or are not foreseen in the business plan or in the Corporation's formal agreements with Government or other parties.

Through the Governance Committee, which also administers the Code of Conduct, the Board ensures that the Corporation's annual objectives reflect its commitments under the business plan, the Letters Patent, and the Canada Marine Act, and ensures that no conflict of interest arise. This Committee also oversees and reports to the Board on the systems that manage the principal risks of the business, including environment, scheduled maintenance and occupational health and safety.

The Human Resources Committee ensures the development of succession plans for all senior management positions, evaluates the performance of senior executives, reviews and fixes senior management salary and compensation policies, and oversees the performance of the Corporation's pension plan.

The Audit Committee, responsible for reviewing financial statements and for audit of the Corporation, also evaluates accounting and financial reporting policies, systems and internal controls.

Members of the Corporation

Board of Directors

Robert J. Swenor ^{1 2} Chairman Steel and Iron Ore Representative

Marc Dulude² Executive Vice-President and Chief Operating Officer IMTT- Quebec Quebec Provincial Government Representative

W. Nick Fox Vice-President, Terminals & Eastern Operations James Richardson International Grain Representative since January 17, 2002

Board of Directors below:

left to right Front row: Marc Dulude, Guy Véronneau, Denise Verreault, Robert Swenor, Alan Holt

Back row: Georges Robichon, Ian MacGregor, W. Nick Fox, Doug Smith



Alan R. Holt ^{2*} ^{4*} Other Members Representative

Ian MacGregor ³ Fasken Martineau DuMoulin LLP Ontario Provincial Government Representative since October 1, 2001

John E. F. Misener ³ Ontario Provincial Government Representative till September 30, 2001

Georges H. Robichon ^{1*} International Carrier Representative Senior Vice-President and General Counsel Fednav Limited

Doug Smith ³ ⁴ Domestic Carrier Representative

Adrian T.C. Tew² Grain Representative till December 7, 2001 Vice-President Louis Dreyfus Corporation

Guy C. Véronneau President & Chief Executive Officer The St. Lawrence Seaway Management Corporation

Denise Verreault ¹ 3* Federal Government Representative President Verreault Navigation Inc.

Officers

Guy C. Véronneau, President and Chief Executive Officer

Joseph V. Contala, Vice-President, Information Technology and Telecommunications

Richard Corfe, Vice-President, Maisonneuve Region and Corporate Process Leader for Infrastructure Maintenance Michel Drolet, Vice-President, Niagara Region and Corporate Process Leader for Ship Transit

André Latour, Vice-President, Human Resources

Carol Lemelin, Vice-President, Finance and Administration

Camille G. Trépanier, Vice-President, Strategic and Business Development

Yvette Hoffman, Counsel and Secretary

Industry Members 2001/2002

Grain ADM Agri-Industries Limited, Windsor, Ontario

Agricore Winnipeg, Manitoba

Alfred C. Toepfer (Canada) Ltd., Winnipeg, Manitoba

Bunge Canada ltd., Québec, Québec

Cargill Limited, Winnipeg, Manitoba

James Richardson International Limited Winnipeg, Manitoba

Louis Dreyfus Canada Ltd., Calgary, Alberta

Saskatchewan Wheat Pool Regina, Saskatchewan

The Canadian Wheat Board, Winnipeg, Manitoba

United Grain Growers, Winnipeg, Manitoba

Steel and Iron Ore

Dofasco Inc., Hamilton, Ontario

Iron Ore Company of Canada, Montreal, Quebec Québec Cartier Mines Montréal, Québec

Stelco Inc., Hamilton, Ontario

Other Members

AGP Grain, Ltd. Minneapolis, Minnesota

Essroc Canada Inc. Mississauga, Ontario

IMC Kalium Canada Ltd., Regina, Saskatchewan

Keystone Industry Co; Keystone Coal Company; Keystone Canada Inc. Montréal, Québec

Lafarge Canada Inc. Hamilton, Ontario

McAsphalt Industries Limited, Scarborough, Ontario

Omnisource Corporation, Burlington, Ontario

Ontario Power Generation Inc. Toronto, Ontario

Petro-Canada Oakville, Ontario

Redpath Sugars, Toronto, Ontario

Sifto Canada Inc., Goderich, Ontario

The Canadian Salt Company Limited, Pointe-Claire, Québec

Domestic Carriers

Algoma Central Corporation St. Catharines, Ontario

Blue Circle Cement Toronto, Ontario

Canada Steamship Lines Inc. Montréal, Québec

Groupe Desgagnés Inc. Québec, Québec

McKeil Marine Limited Hamilton, Ontario N.M. Paterson & Sons Ltd., Thunder Bay, Ontario

P & H Shipping Division, Mississauga, Ontario

Upper Lakes Group Inc. Toronto, Ontario

International Carriers

Christensen Shipping Corporation Montreal, Québec

Colley Motorships Limited, Westmount, Quebec

Fednav Limited, Montreal, Quebec

Gresco Ltée Montréal, Québec

Inchcape Shipping Services, Montréal, Québec

Laden Maritime Inc. Montreal, Quebec

Montship Inc. Montreal, Quebec

Poros Shipping Agencies Inc. Montreal, Quebec

Robert Reford (a division of MRRM (Canada) Inc.) Montréal, Québec

Robin Maritime Inc., Montréal, Québec

Scandia Shipping Agencies Inc. Montréal, Québec

Members of:

- 1. Governance Committee
- 2. Human Resources Committee
- 3. Audit Committee
- 4. Capital Committee
- * Committee Chairman