

The Great Lakes-
St. Lawrence Waterway
A 20/20 Vision for the Future

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Canadian Shipowners Association
Chamber of Maritime Commerce
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St.Lawrence Economic Development Council
St.Lawrence Shipoperators Association
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*Our vision is for
the Great Lakes-St. Lawrence Waterway
to be the most competitive, technologically advanced,
environmentally responsible marine transportation system
in the world, capable of meeting the nation's
future transportation needs.*



Executive Summary

While 20/20 vision is a measure of the eye's acuity, its symbolic and more popular usage implies foresight. And just as individuals benefit from clear vision, industry, government and society in general benefit when steps are taken to prepare for the future. The Great Lakes-St. Lawrence Waterway will be guided by 20/20 vision for the future as set out in this paper.

A Shared Resource

As a major component of Canada's transportation network, the Waterway is vital to the nation's economy. It is a critical link between east and west, between Canada and the United States, between supply and production, between potential and prosperity. The Waterway's importance extends beyond its physical reach—from the Atlantic coast to the western shores of Lake Superior—impacting communities in all regions and people in all walks of life.

Since the release of the first vision paper in 1997, *A Competitive Vision for the Great Lakes-St. Lawrence Waterway*, much has been done to solidify the role that the Waterway plays in our country's success. But there is much left to do. While it is generally known that the system contributes billions of dollars and thousands of jobs to today's economy, the expanded role it will play in the years ahead, and the efforts being made to prepare for it now, need to be considered. To this end, it's important to enlist all parties interested in efficient, affordable and environmentally responsible transportation. And that's just what's being done.

A Common Goal

A quick glimpse at the inside front cover of this document illustrates the level of effort and cooperation that went into its production. Five associations, representing almost 500 marine industry stakeholders, along with The St. Lawrence Seaway Management Corporation, have collaborated to produce this vision paper. The end result is a single voice that speaks for the interests of a diverse group—from shippers to carriers to the public at large—stretching the length and breadth of the Waterway and, indeed, beyond. But the endorsement of these organizations alone will not provide the Waterway with the strength and resources it needs to chart a clear course. That must come from building new partnerships with all levels of government.

While in recent years the federal government has worked in the spirit of partnership to make the Waterway more competitive, it still has not taken the necessary step to give industry the status it needs. The 1997 paper listed as its first recommendation "that the federal government adopt a strategic plan for the Waterway to act as a fundamental component of Canada's transportation policy." That same recommendation tops the list in this document.

A Common Policy

To identify and prepare for these challenges, the marine industry is calling on Transport Canada, with the support of the provincial transport departments, to help develop a strategic plan. The benefit of doing so would be the creation of a common policy that would help direct all regulatory bodies, from the federal level right down to the cities and ports, in matters pertaining to water transportation. This would lead to a streamlined system and the elimination of costly duplication.

A strategic plan would also outline necessary investments, such as an infrastructure renewal program, and identify ways of better utilizing existing services, such as the Coast Guard and pilotage. These efforts, combined with the initiatives that have already been undertaken by industry in the areas of technology, training and new equipment, would improve the competitiveness of the Waterway and serve to enhance the system's already solid reputation.

A Bright Future

The challenges facing the marine industry on the Great Lakes-St. Lawrence Waterway are constantly changing, but our resolve to continue the Waterway's development is strong. The industries involved in Waterway commerce are committed to achieving this vision and encourage government to play an active role, in tandem with industry, to increase the competitiveness of the Waterway with this new **20/20 Vision for the Future.**





Recommendations

The following list of recommendations will help develop an action plan for the industry. The recommendations in full can be found starting on page 14.

1. Partnership with Government

Government and the marine industry must form a partnership to develop and implement a common strategic plan to create efficient and economic marine transportation systems to serve the Canadian economy.

2. Binational Partnership for the Great Lakes and the Seaway

Canadian and U.S. administrations must adopt a common objective of providing a seamless experience for users of the Great Lakes and the St. Lawrence Seaway systems by developing a more coordinated, efficient and shared approach to their operation and governance.

3. Partnership with the Western Canadian Grain Trade

The federal government must work with industry to set up a legislative, regulatory, and economic framework that promotes equity in the grain transportation system. The federal government, in conjunction with the Canadian Wheat Board and non-Board shippers, carriers, ports and the Seaway, must promote sales of Canadian grains to markets that can be economically served by the Waterway.

4. Partnership for Workforce Training

The federal and provincial governments must support the marine industry in the development of human resource strategies and policies that are designed to maintain and recruit a well-trained workforce to service Canada's marine industry.

5. Marine Environmental and Safety Benefits

In establishing transportation policy and determining investments in transportation infrastructure, governments must recognize the environmental benefits and safety value associated with marine transportation.

6. Innovation and Technology in Waterway Management

Governments and agencies, such as the Canadian and U.S. Coast Guards, must work closely with industry on the coordination, joint development, and full integration of information technologies and technological innovations that will lead to a more efficient, safer, and cost-efficient Waterway-management system.

7. Canadian Coast Guard Services

The federal government, with input from industry, must review opportunities to improve the competitiveness of the Waterway by reducing Coast Guard operating costs, exploring avenues for partnership and service commercialization, and minimizing user fees.

8. Waterway Port Network

Federal, provincial, and municipal governments must ensure that policies and legislation serve to maintain a strong and competitive port network, that future development opportunities are encouraged, and that specific regional issues are addressed.

9. Pilotage

The federal government must implement the changes recommended by the Canadian Transportation Agency to ensure a more flexible, cost-effective, and safe pilotage system. Industry supports the review to be undertaken in 2002 to ensure that goals of the reforms are being met.

10. Sustainable Marine

Transportation Service

Governments must recognize the essential role Canadian-flag ship operators and international shipping firms play in providing transportation services to Canadian industries, and in maintaining and enhancing a healthy marine transportation industry. Government must consult with industry and consider its needs in the development of marine-related policy affecting both domestic and international shipowners.

11. Marine Transportation

Infrastructure Investment

The federal government and industry must develop a long-term plan for marine transportation infrastructure investment that recognizes the Waterway's vital role in meeting Canada's transportation and trade needs for the future.

12. Promotion of the Marine

Industry and the Waterway

Federal, provincial, and municipal governments must work together with industry to ensure that Canadians are better informed of the benefits of marine transportation and the contributions that this mode of transportation offers the country's economy and environment.





Meeting Growing Transportation Needs

Efficient, safe and reliable transportation is central to the competitiveness of the Canadian economy. This is especially true in the 21st century as the demand for transportation services is expected to grow significantly, propelled by an expanding economy, liberalized international trade, and global population growth.

Marine transportation is overwhelmingly the most economical mode of transportation and is critical to world trade. When the marine mode's environmental benefits and superior safety record are added to the equation, the importance of the marine transportation sector is clear.

The Great Lakes-St. Lawrence Waterway, which extends from the Atlantic Ocean to the western end of Lake Superior, forms an essential and significant component of Canada's transportation system. The Waterway is a strategic and valuable national transportation route.

The Waterway is a unique navigation system of inter-connected parts that form the largest inland shipping route in the world.

- The **St. Lawrence River** allows deep-draft, high-capacity ocean-going vessels to travel from the Atlantic Ocean to the Port of Montréal.
- The **St. Lawrence Seaway** provides ships access from Montréal to Lake Ontario and onwards to Lake Erie through the Welland Canal.
- The five **Great Lakes** create a marine highway that penetrates deep into the heart of the North American continent.

The Waterway provides access across the country from east to west—linking Atlantic Canada and the central provinces of Québec and Ontario with Western Canada. It is also a vital link between Canadian and U.S. industry and offers both nations access to worldwide markets. It is a key pillar of the North American economy, contributing upwards of \$6 billion annually and more than 65,000 direct jobs to both the Canadian and U.S. economies. Today, the combined Great Lakes-St. Lawrence Waterway handles more than 250 million tonnes of cargo yearly.

The Waterway has been central to Canada's economy since well before Confederation. Understanding its importance, the Canadian and U.S. governments invested in the expansion of the St. Lawrence Seaway in 1959 to allow for the passage of larger vessels into the heartland of the continent to meet the transportation demands of two growing nations. This infrastructure has paid for its original investment many times over in jobs and economic growth.

The St. Lawrence is among the largest rivers in the world. Some 1,700 kilometres long, it not only provides access to the Seaway and the Great Lakes, but also represents a comprehensive marine transportation system. The ports along its length serve ocean-going bulkers ranging up to 250,000 tonnes in size, 150,000-tonne tankers, 2,000-passenger cruise ships, as well as Canadian lakers and tankers. Montréal is the leading Canadian container port serving markets in Central Canada and the U.S. Midwest. More than 110 million tonnes of goods transit the St. Lawrence each year.

There are four strategic components that form the basis for the Waterway's 20/20 vision. These elements will determine the direction we must head in to satisfy the nation's future transportation needs.

1. Economic Growth and Expanding Trade

Projected growth of the world economy, coupled with continued globalization, points to increased levels of domestic and international trade and the need for competitive transportation services. Canada's trade agenda is focused on opening new markets and developing global trade arrangements. Canada needs to consider the transportation strategies that will best meet these emerging trade requirements.

Canada's natural resource sectors rely heavily on marine transportation for the shipment of primary products to domestic and export markets, as do Canadian manufacturers of finished and semi-finished goods. The strategic importance of the marine mode of transportation in effectively sustaining the growth of Canada's inter-regional and international trade must be recognized. The Great Lakes-St. Lawrence Waterway stands at the centre of Canada's largest and fastest-growing economic region and offers ready capacity to service new transportation needs.

2. Transportation Infrastructure Investment

Trade between Western Canada, the Atlantic region, Québec and Ontario represents millions of tonnes of goods each year. Canada must focus its efforts on the development of an efficient transportation infrastructure that can respond to the needs of domestic trade activity.

The Waterway offers an attractive option for domestic transportation by providing an economic and efficient alternative to road and rail transport infrastructure that are nearing a point of saturation. The Waterway is a key component of inter-modal service and, in certain instances, can offer a viable alternative to rail and trucking to handle trade activity.

Canada must promote the increased use of marine transport as a solution to the problem of overburdened infrastructure, particularly the clogged roadway systems. Before committing major public expenditures to roadway expansion, opportunities to exploit the marine option must be fully considered.



3. Environmental Impacts and Stewardship

As North America looks to the expanding demand for transportation services, the costs to the environment need to be considered. Planning Canada's future needs must take into account the environmental benefits associated with the marine mode.

Expanding the use of marine transportation to handle increasing traffic requirements is the most environmentally effective method to augment Canada's transportation capacity.

4. Transportation Safety

Safety must be viewed as a key factor in the development of transportation systems within Canada. The marine mode boasts an impressive safety record.

With marine transport, the risk of accidents and any resulting impacts on the environment and human life is far lower compared to all other modes.

We believe that once these strategic components are studied and better understood, the solutions will largely be found in expanding the role of marine transportation, and by investing in marine transportation systems to meet the competitive challenges of the future.







First Phase: Laying the Foundation

In 1997, the Canadian Shipowners Association, representing the owners of fleets that supply shipping services, and the Chamber of Maritime Commerce, representing the major cargo shippers, outlined a strategic vision for the future of the Waterway in a document entitled *A Competitive Vision for the Great Lakes-St. Lawrence Waterway*.

The vision called for:

- the development of a comprehensive policy framework and business plan for the Waterway;
- modernization of the regulations that govern the industry;
- increased private-sector participation in the management of the Waterway;
- specific measures to establish an equitable trading environment to increase competitiveness;
- recognition of the environmental attractiveness of the marine mode.

Through a series of meetings with political and public service leaders, these priorities were discussed and, in several areas, action was taken to deliver important changes to the policy environment affecting the Waterway. A new Marine Act is now in place, the St. Lawrence Seaway administration has been revitalized with private sector management involvement, a review of the pilotage system has been completed, and new governance practices for major Canadian ports have been instituted. Moreover, a three-year moratorium in marine service user fee increases was instituted in 1998 while Coast Guard costs are analyzed and economic impacts of all government fees and charges are reviewed.

Meanwhile, both domestic and international shipowners, who regularly operate in the Waterway, are aggressively pursuing fleet renewal and modernization programs. With a total investment value in excess of \$500 million, these programs are aimed at replacing outdated capacity with modern and more economical equipment, or extending the life of existing vessels through major refurbishment work. Further investments are also being made to equip vessels with the most up-to-date electronic navigation and information technologies to improve operational efficiency and safety performance.

The marine industry is encouraged with the advances made towards the realization of its strategic vision in this first phase, and with the wide scope of actions being pursued in an effort to improve the competitiveness of the marine transportation sector. The table in the Appendix provides an overview of the 12 strategic recommendations put forward in the earlier Competitive Vision document, and summarizes the action taken and progress to date.





Second Phase: A 20/20 Vision for the Future

Our vision is for the Great Lakes-St. Lawrence Waterway to be the most competitive, technologically advanced, environmentally responsible marine transportation system in the world, capable of meeting the nation's future transportation needs.

It is now time to move on to the Second Phase of the Waterway competitiveness challenge. Industry is doing so in two ways:

- First, we are building on the past several years of progress and setting forth a renewed vision in order to find solutions for the transportation issues of today.
- Second, we are addressing longer-term transportation issues and needs as we look forward into this new century and develop a strategic plan to guide the Waterway into this exciting era.

Demand will remain strong for reliable and competitive marine transportation services. As the economy grows, industry and government need to work together to ensure that the regulatory framework and physical infrastructure necessary to meet this demand are in place. Effective solutions hinge on developing effective partnerships between industry, government and labour, and committing to a common agenda.

As an industry, our goal is to enhance the competitiveness of the marine transportation sector. The key issues that all stakeholders must work together on are:

- reducing cargo transport and handling costs;
- eliminating excessive or unnecessary regulations;
- developing a regulatory environment that does not place the marine mode at a competitive disadvantage;
- exploiting the substantial environmental advantages of marine transportation;
- ensuring that a “level playing field” exists to compete with other transportation modes;
- building on the strength of Canada's marine workforce and providing it with the tools and training to remain the best in the world;
- ensuring that the infrastructure of the Waterway can adequately meet the future needs of industry.

Historically, the canals that allowed access to new frontiers, railways that carried people and goods to new settlements, and airports allowing quick access to the world, have all required planning and investments beyond the reach of single individuals or regions. In each case, public investment and, more recently, joint public-private investments, have paid economic dividends by providing reliable infrastructure through which trade could be conducted. Now, we need similar planning and investment that will enable us to reach the goals identified in our vision.

In the decades to come, North America's surface transportation infrastructure will be stretched to the limit. In many areas it already is. It is important that the federal and provincial governments, working with industry, better understand the role that marine transportation and the Great Lakes-St. Lawrence Waterway can play in meeting the needs of industry in the future.

In September 1999, a special task force, working under the direction of the U.S. Department of Transportation, submitted a report to Congress entitled *An Assessment of the U.S. Marine Transportation System*. The report concluded that the ability of U.S. waterways, ports and their intermodal connections, and vessels to handle the emerging needs of tomorrow will be severely challenged. In response, a vision for the future was developed and a set of strategic actions was recommended to ensure that the U.S. marine transportation system is prepared for the year 2020. Canada must also take steps to ensure that its marine transportation systems are similarly prepared.

As we launch into the Second Phase of our plan, we wish to build on recent accomplishments and continue the process of streamlining and optimizing the marine sector environment in the Waterway. Additionally, we are confident that a closer partnership with government and a common plan will make the Waterway ready to serve the needs of shippers, the marine industry, the communities of the Great Lakes and St. Lawrence River and the North American economy in 2020.



Actions Required

This section outlines an overall framework and general direction to guide both government and industry to realize the Waterway's 20/20 Vision for the Future.

1. Partnership With Government

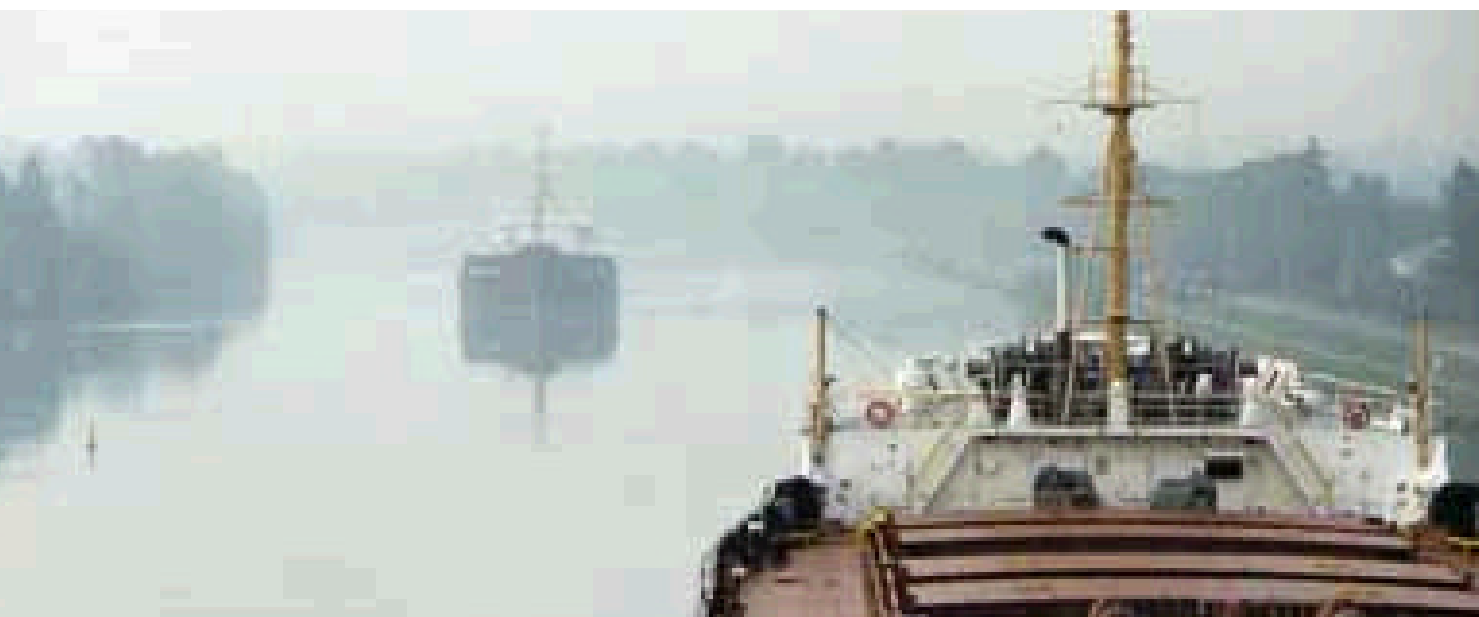
Governments and the marine industry must form a partnership to develop a comprehensive transportation policy and implement a common strategic plan to create efficient and economic marine transportation systems to serve the Canadian economy.

A partnership between industry and government is essential to the future development of the Waterway and to achieve a common goal of improved competitiveness.

The Waterway is affected by authority exercised by a number of government departments—from Transport to Industry, from Agriculture to Immigration. The challenges ahead, including infrastructure renewal, trade reform, and U.S.-Canada bilateral issues, require support and common purpose from a variety of other government departments.

All branches of government must therefore be guided by a comprehensive transportation policy with a focused commitment to building a more competitive environment for the marine transportation industry and its users. Transport Canada's mandate to lead the federal government in marine transport strategy and policy matters, as well as coordinating related government activity overall, needs to be affirmed.

Transport Canada, together with the Québec and Ontario transport departments, must work with industry to develop a common strategic plan for the Waterway aimed at the long-term development of a highly competitive, dynamic marine transportation system capable of responding effectively to the growing needs of the Canadian economy. Given the increasing importance of relations between cities and ports, this co-operative arrangement should include the municipalities that are home to the ports.



2. Binational Partnership for the Great Lakes and the Seaway

Canadian and U.S. administrations must adopt a common objective of providing a seamless experience for users of the Great Lakes and the St. Lawrence Seaway systems by developing a more coordinated, efficient and shared approach to their operation and governance.

Canada and the U.S. are custodians of the Great Lakes and St. Lawrence Seaway portions of the Waterway. Both countries deploy Coast Guard resources and provide marine navigation, pilotage and other services to a wide variety of users. Additionally, each plays a role in the St. Lawrence Seaway through the recently commercialized St. Lawrence Seaway Management Corporation in Canada, and the Saint Lawrence Seaway Development Corporation in the U.S.

From a user's perspective, these services should be provided in the most seamless and efficient fashion possible as a means of enhancing the Waterway's productivity and competitiveness.

The dual provision of certain services results in additional administrative overhead, lack of joint planning, and extra costs. Beyond joint Seaway administration, consideration should be given to closer co-operation and the sharing of marine services and infrastructure investments. Cost savings could accrue from coordinated planning and the merging of services.

Users currently must deal with many different government agencies on both sides of the border, and must comply with two sets of regulations that govern the use of the system. Every effort must be made by these agencies to harmonize rules and regulations and avoid duplication and to ensure that enforcement and implementation are consistent.

Achieving a consensus between Canada and U.S. administrations on marine policy issues, and increasing co-operation between the two, would result in a more equal and more efficient system for all stakeholders. This process should start at the operational level, and as Great Lakes and Seaway operations become more binational, the governments of Canada and the United States will recognize the ultimate benefit of coordinating their respective national policies.

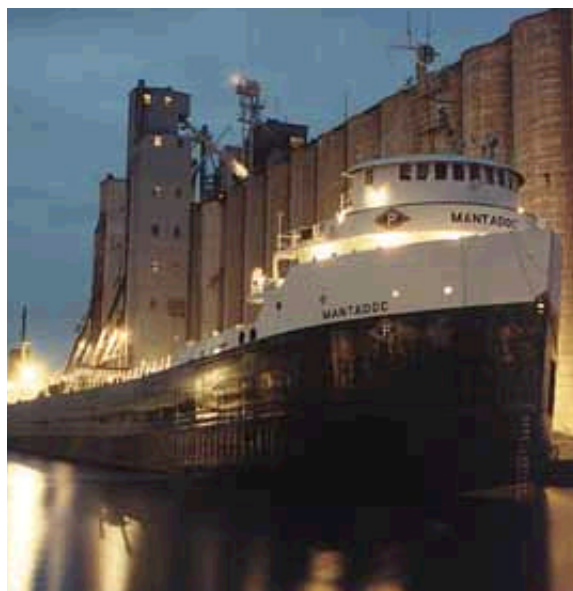


3. Partnership with the Western Canadian Grain Trade

The federal government must work with industry to set up a legislative, regulatory, and economic framework that promotes equity in the grain transportation system. The federal government, in conjunction with the Canadian Wheat Board and non-Board shippers, carriers, ports and the Seaway, must promote sales of Canadian grains to markets that can be economically served by the Waterway.

Grain has traditionally been one of the Waterway's most important commodities. Each year, a significant portion of Canadian domestic and export grain, as well as U.S.-origin grain, is shipped via the Waterway.

The volume of Canadian grain shipments via the Waterway has averaged approximately 10 million tonnes annually over the past 15 years; but shipments have declined from a high of 15 million tonnes in 1986-87 to about 7 million tonnes in 1998-99. An important factor in explaining this decline in volume is the shift in demand for Canadian grains to Asia-Pacific markets that favor exports off the West Coast. As a percentage of the total Canadian exports, the Waterway's share has slipped from 55 percent 15 years ago to just over 30 percent today.



The declining volume of Canadian grain shipped through the St. Lawrence Seaway has impacted negatively on a number of sectors in the Waterway marine community:

- grain elevators in Thunder Bay and at ports in the St. Lawrence River are highly dependent on the movement of grain using the domestic bulker fleet and are currently underutilized;
- domestic bulker fleet capacity has been reduced by 40 percent since 1985 and the current fleet is forced to operate inefficiently due to uneven, seasonal grain-shipping programs;
- Seaway toll revenues have declined;
- lower grain volumes will eventually increase the cost of Quebec-Labrador iron ore shipments to steel mills situated in the Great Lakes region;
- international vessels trading into the Waterway face an inbound/outbound cargo imbalance situation that affects the competitiveness of certain trades.



Even with the decline in western grain shipments via the Waterway, the route still plays an important role in the movement of grain. The Seaway route provides capacity to respond quickly to the need for large grain movements, retains considerable grain storage capacity, and provides the most direct and efficient access to European, African, and Middle Eastern markets. It also provides marine-based, grain-hauling capacity, which serves as a competitive balance to a direct-rail transport option.

Certain factors in the grain-transportation system, such as the existence of regulated rail grain revenues west of Thunder Bay, may distort the true economics and competitiveness of the Waterway. Others include:

- the railways' unrestricted use of publicly provided hopper cars at less-than-fair-market rates;
- the determination of fair-market value in the event that the government disposes of its hopper car fleet;
- support in various forms for the Port of Churchill;
- the funding and subsidization provided in the U.S. for transportation infrastructure, particularly the Mississippi waterway.

It is essential that government recognizes the strategic importance of the Waterway and works with industry to set up a legislative, regulatory, and economic framework that promotes equity in the grain transportation system.

4. Partnership for Workforce Training

The federal and provincial governments must support the marine industry in the development of human resource strategies and policies that are designed to maintain and recruit a well-trained workforce to service Canada's marine industry.

Canada is blessed with an experienced and professional marine workforce. Trained at a network of marine training centres and universities across Canada, Great Lakes and St. Lawrence Waterway marine workers are known internationally for their professionalism and capabilities in both navigation and marine management.

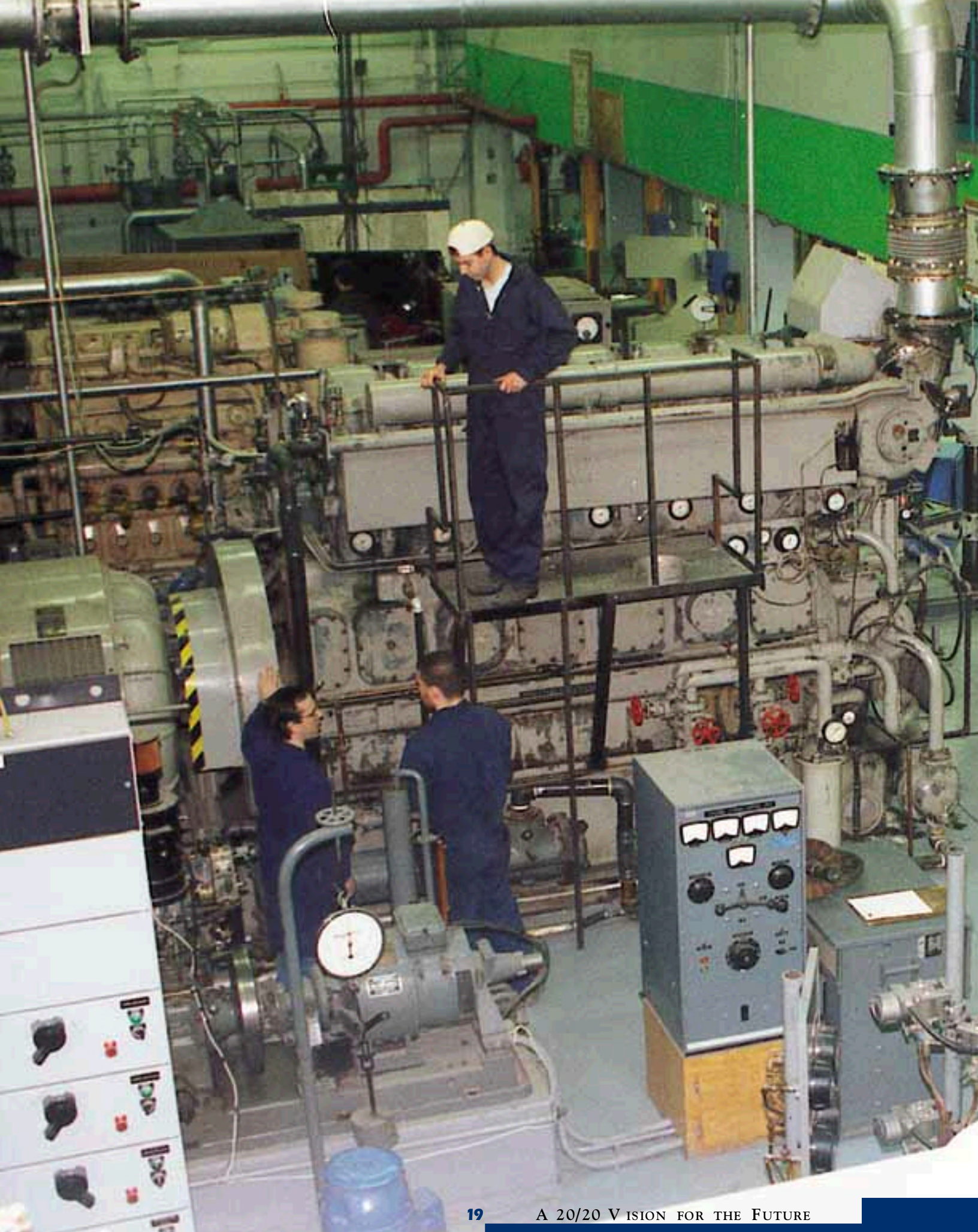


The next decade will usher in a period of demographic change in Canada's marine workforce as many current workers retire. Concurrently, Canada's marine training institutes are faced with program funding cutbacks as well as challenges in recruiting youth to marine training programs. Taken together, these factors present a serious threat to human resource development at the dawn of the 21st century.

Today's worker requires advanced training in information and navigation technologies and continuous training in safety management and quality assurance. It is critical that Canada attracts bright young people to careers in the marine industry.

The Government of Canada has placed a renewed emphasis on human resource development and lifelong learning in the changing economy. The marine sector looks forward to addressing these pressing issues with Human Resource and Development Canada and with its partners from labour.

The ability to maintain and improve marine training programs is vital to the future of the marine industry in the St. Lawrence and Great Lakes region. Support for educational institutions, with a view to maintaining the quality and availability of marine training programs, must be provided in partnership with provincial government departments that have jurisdiction over education and training.



5. Marine Environmental and Safety Benefits

In establishing transportation policy and determining investments in transportation infrastructure, governments must recognize the environmental benefits and safety value associated with marine transportation.

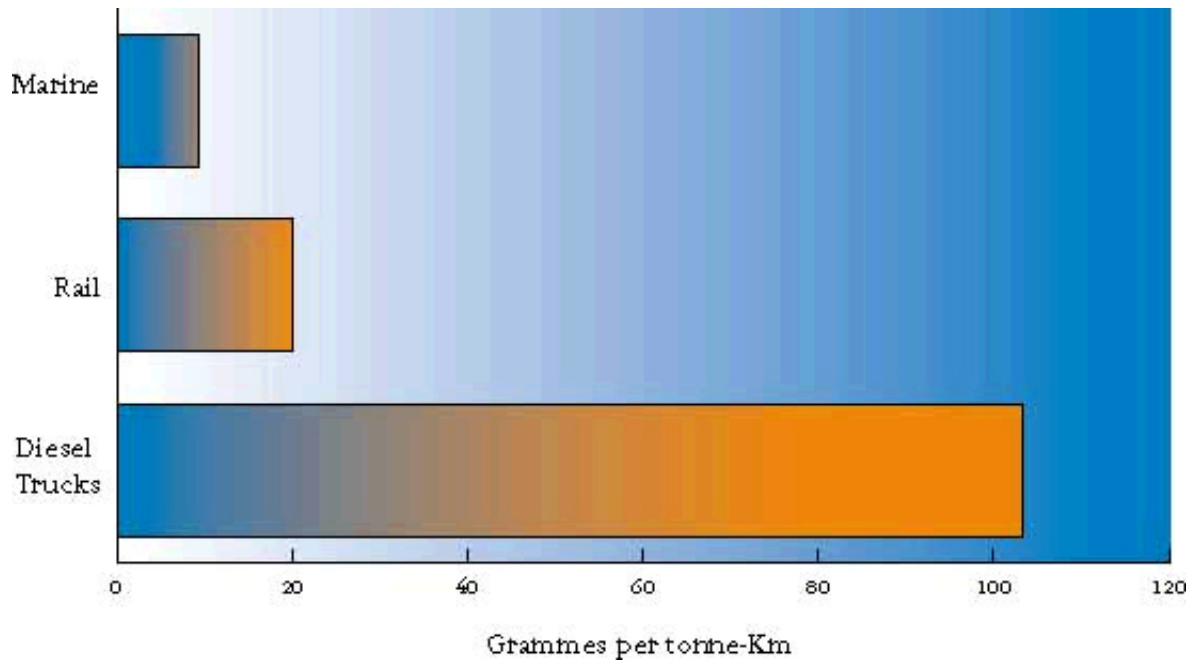
To the 100 million citizens of Canada and the United States who live in regions adjacent to the Waterway, it is a very special part of their lives. One-fifth of the world's fresh water supply is contained in the Great Lakes, making it the largest fresh water system on earth. One in three Canadians depends on the Great Lakes and St. Lawrence for water. Millions of people use it as a centre for recreation, while its bays, rocky shores and marshlands provide habitat for an enormous variety of wildlife.

Industries located along the Waterway that use it as a source of water and for transporting merchandise are aware of the need to protect the quality of the environment. As an example of environmental responsibility, the St. Lawrence marine community has introduced an Environmental Code of Ethics for users of the St. Lawrence River, which is designed to encourage the preservation of the quality of the environment and foster respect for the various uses of this resource.

Through the St. Lawrence Action Plan, the marine community, in co-operation with government authorities, has also undertaken a systematic review of the impact of marine transportation on the environment. The purpose of the review was to assess the extent of impacts resulting from factors such as riverbank erosion, introduction of non-indigenous species, disposal of dredging sediment, and to identify solutions for eliminating or alleviating negative effects. The aim is to improve the environmental status of marine transportation while developing a basis for sustainable navigation that meets the environmental expectations of the community.



Greenhouse Gas Freight Emissions (per tonne-kilometre by mode, 1997)



The marine industry has made great progress in making its operations safer and more environmentally conscious. In fact, the marine mode enjoys a safety record that is superior to all other modes of transport. A variety of new technologies in the area of communications and navigation have been developed, providing new levels of safety. Vessel operators are adopting International Safety Management standards while ensuring that the marine workforce undergoes extensive safety and environmental response training.

Studies have shown that vessel transport on the Great Lakes and St. Lawrence River is safer, requires less fuel, and produces fewer emissions per tonne-kilometre of cargo carried than either rail or truck transport. Additionally, marine navigation causes far less impact in terms of noise and social disruption than other modes of transport. An increase in the use of marine transportation will ease traffic congestion on roads and reduce the social costs and pollution levels associated with overland routes.

Canada has committed to some very ambitious targets for reducing greenhouse gas emissions under the Kyoto Protocol. Objectives for changing from high-emission to low-emission transportation modes are a key element in developing sound strategies and environmental policies for the nation. Exploiting the favourable environmental status of the marine option must be a very important consideration in developing strategies to achieve the Kyoto targets, and in designing Canada's future transportation system.



6. Innovation and Technology in Waterway Management

Governments and agencies such as the Canadian and U.S. Coast Guards must work closely with industry on the coordination, joint development, and full integration of information technologies and technological innovations that will lead to a more efficient, safer, and cost-efficient Waterway-management system.

Achieving increased levels of efficiency, safety, and cost savings through technological innovation is key to maintaining and improving the competitiveness of the Great Lakes-St. Lawrence Waterway.

Historically, the marine industry has successfully used technological innovation as a powerful tool to ensure competitiveness. For instance, the self-unloading bulk vessel was pioneered on the Waterway, where quick turnaround times and cargo-delivery flexibility are essential. Self-unloaders allow shippers' transportation demands to be met within the confines of a nine-month navigation season on the Great Lakes. Self-unloaders, as well as a new generation of ocean-going bulkers, incorporate innovative designs that optimize cargo lifts within the limits of the physical size of the St. Lawrence Seaway

To ensure that the marine industry remains at the forefront of technological development, industry and government must agree on a common vision and develop a plan of action. Industry believes that success rests with governments playing a crucial role in several specific areas:

Coordination with Industry

Advanced technologies must be implemented not only by vessel, port and terminal operators, but also within government agencies such as the Coast Guard, Transport Canada, Environment Canada, and the Department of Fisheries and Oceans. Industry must participate in the selection, development, and upgrading of such systems, while government must ensure that the various monitoring, telecommunications and information systems it controls are completely up-to-date and fully compatible.

Regulations and Standards

Governments must support technological development by designing regulations that will make it easier to introduce more powerful systems. The Government of Canada must also maintain its position as a key player in international marine organizations, while strongly advocating and promoting the development of appropriate international standards to accelerate the implementation of new marine systems and technology. The application of new technologies under international standards must not lag behind advances and discoveries, but instead it must be seen as an opportunity for government and industry to stay on the cutting edge.

“In the global, knowledge-based economy, the advantage goes to countries that are innovative, have high levels of productivity, quickly adopt the latest technology, invest in skills development for their citizens, and seek out new opportunities around the world.”

- Speech from the Throne, second session of the 36th Parliament of Canada, October 1999



Systems Integration

Looking to the future, our goal must be the creation of integrated systems, capable of linking industry users and government agencies. These systems will provide real-time water levels updates, weather forecasts, ice-condition data, traffic status, and other essential information from a single, coordinated platform. A safer and more efficient Waterway will be achieved through the quicker and more complete interchange of data and by eliminating bureaucratic delays and streamlining the data collection efforts.

Research and Development

New information technologies such as Differential Global Positioning Systems (DGPS) and Electronic Chart Display Information Systems (ECDIS) have recently been deployed to greatly enhance safety and efficiency by providing more accurate and timely navigational information. A leading Canadian ECDIS supplier, with the support of Industry Canada, will soon expand the capabilities of electronic chart display systems to meet the complex technical requirements of military and Coast Guard vessels.

This is a prime example of a high-tech project within the marine sector that creates jobs and opportunities in a dynamic, knowledge-based economy and could be of great benefit to commercial navigation. It is vital that government and industry continue research and development efforts to advance new information and navigation technologies. It is also essential that agencies such as the Canadian Hydrographic Service continue to receive support and adequate funding to accomplish this goal.





7. Canadian Coast Guard Services

The federal government, with input from industry, must review opportunities to improve the competitiveness of the Waterway by reducing Coast Guard operating costs, exploring avenues for partnership and service commercialization, and minimizing user fees.

It is imperative that the federal government recognizes the essential public-interest role that the Canadian Coast Guard (CCG) plays in the field of marine transportation and management of the waterways. Appropriate steps must be taken to ensure that the CCG's fleet is adequately resourced to fulfill its mandate and to optimize levels of safety and efficiency.

Equally important is the need for government to recognize the competitive impact and hardship caused with the introduction of user fees. New fees for navigational aids, ice-breaking and maintenance dredging on the St. Lawrence have recently been added to the cost structure of marine transportation in Canada. While such user fees may have helped the federal government reduce the national deficit, they have done more to harm the competitiveness of the marine mode than any other single issue.

The restructured Marine Advisory Board has been established for the purpose of reviewing CCG costs and services as well as cost recovery programs. It is comprised of representatives appointed from every region in Canada and can play an important role in advising the Commissioner of the Canadian Coast Guard on issues relating to services, costs, technology, and CCG management strategies. While government has limited industry's role to being simply advisory in nature, it is important that a meaningful and effective consultative process be maintained and that the views of industry are respected by the CCG and the federal government.

Quality of services

Availability of efficiently provided navigational aids, information and communication services, dredging, ice-breaking, and search-and-rescue services, help to ensure the Waterway's competitive operation. Over the coming years, industry and the CCG must review how these marine services can be best organized and delivered so as to guarantee top-quality services to Waterway users.

Cost of Services

In line with the recommendations made in 1998 by the Great Lakes-St. Lawrence Maritime and Industrial Coalition, the CCG must work hand-in-hand with industry to scrutinize the costs related to services and identify ways to provide the necessary services at the lowest cost possible.

A detailed analysis of CCG operations and the determination of actual costs must be undertaken. The analysis must identify those services that are provided for the public good and those that relate to commercial marine sector or other Waterway users or beneficiaries.

Additionally, options for the possible commercialization of CCG activities should be carefully considered, through consultation with industry, as a strategy to lower cost structures and achieve greater operational efficiency.

Cost Recovery and User Fees

In 1998, following discussions with the National Maritime and Industrial Coalition, the federal government froze user fees for a three-year period. Together with the freeze, the government agreed to undertake a thorough economic-impact analysis and a complete assessment of the government fees charged in order to understand their effect on industry competitiveness and the Canadian economy.

Equity must be the cornerstone of any cost recovery system. Equity cannot exist if certain user groups are not subject to marine fees as is now the case in certain regions and with groups such as fishermen and pleasure craft users.

Industry believes that the goal must be to reduce the cost of providing CCG services to commercial users and to minimize user fees, which undermine the competitiveness of the Waterway. The Great Lakes-St. Lawrence Maritime and Industrial Coalition is committed to working closely with the CCG to review services and costs. The goal is to meet budget targets by reducing expenses without having to raise fees any further. An arrangement must be made whereby future fees are predictable and any cost reductions achieved would be shared with commercial users through the reduction of user fees.





8. Waterway Port Network

Federal, provincial, and municipal governments must ensure that policies and legislation serve to ensure that a strong and competitive port network is maintained, that future development opportunities are encouraged, and that specific regional issues are addressed.

The Canada Marine Act, which came into force in 1998, divided the Canadian ports into two main groups: National Ports System, made up of independently managed Canada Port Authorities, and public ports. The federal government relinquished control over this latter group. In recognizing the critical role that ports play in Canada's domestic and international trade, the legislation was designed to permit independent management of ports and to streamline the regulatory regime.

Port administrations within this new regime have raised concerns that include difficulties related to the financing of large capital projects. The problem is compounded by the fact that U.S. ports continue to be subsidized by U.S. state and federal governments. The fact that ports are compelled to pay annual rents to the federal government based on gross revenues rather than earnings may also render ports noncompetitive over time. Under the new system, the additional costs for municipal tax payments and harbour dredging costs are leading to concern for the long-term viability of ports.

Along the Waterway there are several dozen smaller ports where millions of tonnes of goods are handled each year and which do not belong to the National Ports System network. These ports are typically distant from major industrial centres, but play an important role in a marine economy that needs competitive options for loading and unloading cargoes. They also serve an important role in regional economies by offering local shippers a transportation service that quite often is a deciding factor when choosing where to locate their business operations.

With the consolidation of the port industry as their long-term vision, the federal, provincial, and municipal governments must recognize the need for a diversified system of port infrastructure that will meet the needs of shippers and carriers in every region. Although a review of the Canada Marine Act is scheduled for 2002, certain changes to the legislation pertaining to ports may be required sooner in order to ensure that a strong and competitive port network is maintained, that future development opportunities are encouraged, and that specific regional issues are addressed.



9. Pilotage

The federal government must implement the changes recommended by the Canadian Transportation Agency to ensure a more flexible, cost-effective, and safe pilotage system. Industry supports the review to be undertaken in 2002 to ensure that goals of the reforms are being met.

Pilotage is an essential aspect of Waterway infrastructure. It helps ensure safe passage of all vessels and the maintenance of reliable commercial shipping.

Pilots provide an essential service where ship masters and navigating officers are unfamiliar with local waters and have insufficient pilotage skills. However, Canadian vessels are exempted from pilotage when under the command of trained, experienced Canadian officers who comply with requirements for exclusion from compulsory pilotage.

Owners and operators of Canadian-flag vessels have invested significantly in advanced navigational technology, Bridge Resource Management training, and the development of ship masters and navigating officers. The vast majority of the fleet and their crews meet standards that exceed International Maritime Organization and Transport Canada regulations.

International ship operators are entirely dependent on reliable and cost-effective pilotage services. They have recommended measures to ensure that Pilotage Authorities are well managed, financially self-sufficient, and that rates are competitive throughout the shipping industry.

Recognizing the importance of maintaining a high-quality system of pilotage while introducing reforms to reduce costs and meet user needs, ship owners and shippers have participated actively in the Minister of Transport's Pilotage Review, undertaken by the Canadian Transportation Agency. Their recommendations have pointed to the need for flexibility and efficiency without compromising safety. Industry supports the Canadian Transportation Agency recommendation endorsing the Canada Marine Act requirement stipulating a subsequent review be undertaken in 2002 to verify that the recommendations are being implemented.



10. Sustainable Marine Transportation Service

Governments must recognize the essential role Canadian-flag ship operators and international shipping firms play in providing transportation services to Canadian industries, and in maintaining and enhancing a healthy marine transportation industry. Government must consult with industry and consider its needs in the development of marine-related policy affecting both domestic and international shipowners.

Shipowners, operating both domestically and internationally, provide an alternative in Canadian transportation that offers significant benefits. Canada's domestic fleet plays a central role in the development and implementation of marine policies related to the economic and labour interests of Canada.

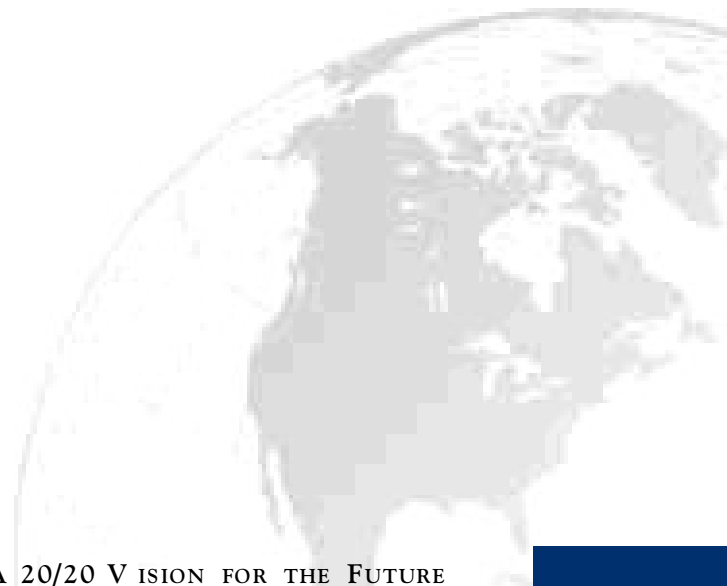
The domestic fleet serves an important role in the Great Lakes–St. Lawrence Waterway system carrying more than 75 million tonnes of goods between Canadian ports and between Canadian and U.S. ports annually, in a timely and efficient manner. It has become a world leader in the use of self-unloading technology for the movement of dry bulk cargo and in the development and use of precise navigation systems.

Canadian shippers also rely heavily on the services of international ship operators for the transport of some 225 million tonnes of raw materials, semi-finished, and finished goods to and from worldwide markets annually. In order to service the varied needs of the market, international shipping lines provide a variety of vessel types and sizes ranging from the giant 250,000-tonne bulk carriers to specialized ocean-going Seaway-size vessels.

Domestic carriers support and contribute to the development of a highly skilled labour force and, together with international carriers, are responsible for generating significant indirect employment opportunities in other areas of the marine industry and services sector.

A number of important economic, trade, and regulatory factors must be considered in the development of marine policy and legislation in order to strengthen the competitive environment for the Waterway. The federal government must consult with industry and consider its needs in the development of a comprehensive marine transportation policy affecting both domestic and international shipowners.

Due to a strong strategic, economic, and historical link between the domestic fleet and the Canadian shipbuilding industry, the federal government must also consider the effect its shipbuilding and economic policies could have on fleet replacements.





11. Marine Transportation Infrastructure Investment

The federal government and industry must develop a long-term plan for marine transportation infrastructure investment that recognizes the Waterway's vital role in meeting Canada's transportation and trade needs for the future.

Governments must ensure that the transportation infrastructure for which they are responsible is sufficient if they are to keep their competitive advantage.

The Federal Government has indicated that it is committed to the development of a long-term plan for improving the country's physical infrastructure, including transportation systems. The marine industry welcomes this initiative.

Countries around the world, including the U.S. and those in Europe, Asia, and South America, have invested aggressively in waterway improvements. Most have developed long-range marine-transportation plans extending 20 to 50 years into the future.

“Canada must also continue to improve its physical infrastructure for the 21st century. To increase trade and economic growth, we must ensure that we have the capacity to move people and goods safely and efficiently. To maintain the quality of life in our cities and rural communities, we must ensure that we have clean air and water.”

- Speech from the Throne, second session of the 36th Parliament of Canada, October 1999

Investments in marine infrastructure are being made not just to retain a nation's competitive position globally, but also because government leaders worldwide have recognized that fewer ships and barges means more air pollution, more fuel use, higher road repair costs, more traffic congestion, and more accidents if capacity is left to shift from the waterways to overland routes.

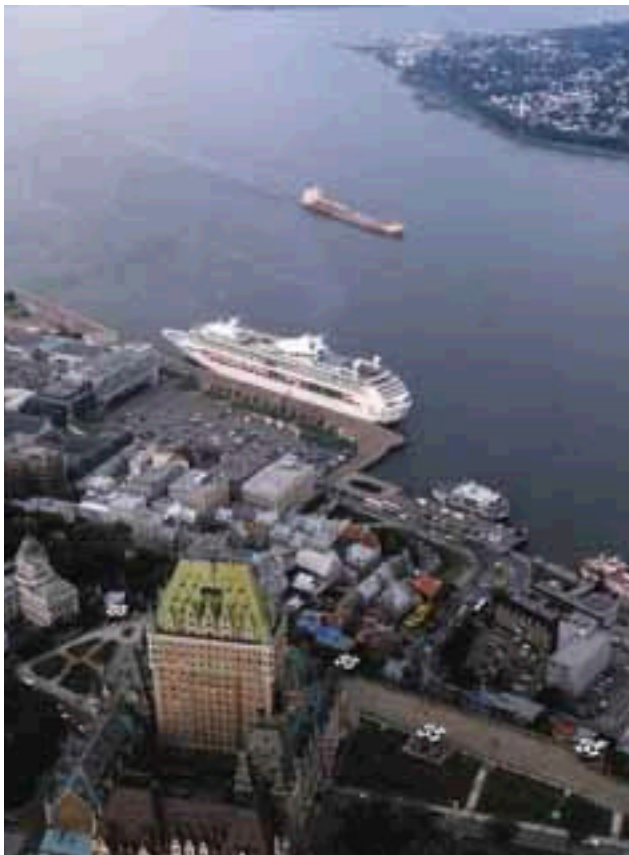
In the United States, the new Transportation Equity Act provides some \$200 billion in new national spending on transportation infrastructure. The program will address a variety of marine-related needs such as undertaking a major overhaul of the aging locks and pursuing major port and channel dredging programs.

Industry and government must review the priorities for marine infrastructure development. Strategic investments providing the latest in technology would position the industry for long-term growth and provide for expansion into new markets.

12 Promotion of the Marine Industry and the Waterway

Federal, provincial, and municipal governments must work together with industry to ensure that Canadians are better informed of the benefits of marine transportation and the contributions that this mode of transportation offers the country's economy and environment.

Marine transportation plays a unique and indispensable role in achieving Canada's trade objectives. Our nation's primary industries—employers that form the foundation of our economy—rely extensively on water transportation to remain competitive. One out of every 150 jobs in Canada is directly or indirectly attributable to the marine transportation industry. Marine-related activity associated with the Great Lakes-St. Lawrence Waterway alone adds an estimated \$3 billion annually to the Canadian economy.



Unlike other modes of transport, most marine-related activities and operations occur outside of direct public view and attract little attention. This factor has led many in the public and private sectors to not fully appreciate the economic importance and environmental benefits associated with marine transportation. The significant contributions made by the marine mode tend to be overshadowed by publicity and government attention directed to rail, air, and road transport.

Environmental protection is becoming an increasingly important issue in all sectors. Unfortunately, community and environmental groups tend to perceive shipping as the least economical and most polluting method of transportation. On the contrary, shipping does not have a major environmental impact; it is a very cost effective and environmentally responsible mode of transportation compared to other modes.

The marine industry has set a goal to promote a more positive image to the public and to showcase commercial shipping as the most advantageous method of transporting goods with the least impact on the environment. To achieve this goal, industry and government must join together to present clear and accurate information on the issues surrounding the various transport modes in Canada.





Conclusion

The recent 40th anniversary of the St. Lawrence Seaway marked an opportunity to reflect on the success of this system of locks linking the St. Lawrence and Great Lakes and to honour those whose vision and commitment contributed to its construction and utilization. It was also a time to look forward to the new challenges created by an ever-changing marketplace.

The Waterway itself, enhanced with the opening of the Seaway in 1959, has served to extend Canada's export reach in the agricultural, steel, and natural resource sectors. Billions of tonnes later, these sectors of the Canadian and the U.S. economies continue to benefit from the vision of the Waterway's developers.

The decision, almost 40 years ago, to keep the St. Lawrence River open to navigation during winter also helped significantly in the development of the St. Lawrence and the central Canadian industrial heartland. With year-round access, container traffic to Montréal has grown stronger and a large number of local industries using vessels to receive supplies and export their goods have also benefited.

The time has come for industry and governments to "step back" to consider how the Waterway should serve Canada's transportation and trade objectives for the future and how best to keep pace with other world-class marine trade routes.

European ports such as Rotterdam, Asian ports such as Singapore, as well as many U.S. ports and waterways, are making great progress in modernization from a number of perspectives. Actual waterway improvements are being made and, through the application of technology, these ports and waterways are becoming highly efficient and world-class customer-service providers. This is the sort of global competition and the standards that the Great Lakes-St. Lawrence Waterway must meet today.

The patterns of commercial transportation, the technology at hand to meet present challenges, emerging trade agendas, environmental objectives, and the needs of shippers must be examined. The review should look extensively to the emerging markets of North America and the world, the prevailing trends in international commerce and the opportunities they present for marine transport. With respect to the traditional role of the Waterway in shipping commodities such as grain to overseas markets, the review should look to expected patterns of international trade and new trade opportunities.

The challenges facing the marine industry on the Great Lakes and St. Lawrence Waterway are constantly changing, but our resolve to continue the Waterway's development is strong. The industries involved in Waterway commerce are dedicated to continuing our efforts and encouraging government to play an active role, in tandem with industry, to increase the competitiveness of the Waterway with this new ***20/20 Vision for the Future.***



Appendix

1997 Competitive Vision Document Recommendations

Progress and Actions Taken

Partnership For Change

- 1 The federal government should adopt this Competitive Vision—including the development of a single, coherent strategic plan for the Waterway—as a fundamental component of Canada’s transportation policy.

Although the partnership between government and industry is much improved, a comprehensive marine transportation policy does not yet exist.

Waterway Management

- 2 Enact legislation to commercialize the St. Lawrence Seaway, in partnership with users of the Seaway, and to reform Canada’s port system.
- 3 Establish binational management of the St. Lawrence Seaway.
- 4 Work with industry to reduce the cost of Coast Guard-provided services and to identify opportunities for commercialization of those services.
- 5 Make legislative and regulatory changes required to modernize the pilotage scheme.

The St. Lawrence Seaway was commercialized and a new, more independent port structure has been implemented.

Canadian and U.S. authorities have yet to agree on a binational management strategy for the Seaway, although both Seaway service providers have informally developed closer working relationships.

Coast Guard user fees have been frozen for three years at 1998 levels, while industry and government work to determine the impact of all government fees on the competitiveness of the marine industry.

Efforts are being made to improve the consultation structure to develop strategies that reduce the cost of Coast Guard services.

A comprehensive review of Canada’s pilotage system was undertaken by the Canadian Transportation Agency.

1997 Competitive Vision Document Recommendations

Progress and Actions Taken

Equitable Trading Environment

- 6 Address inequitable U.S. shipping regulations that prevent market access to Canadian carriers.
- 7 Address the competitive threat to the Waterway caused by the current subsidization of competing waterways such as the Mississippi River.
- 8 Consider the potential effects of any changes to the current grain-transport system on the marine mode and the St. Lawrence Seaway.
- 9 In creating policy, regulatory and legislative changes, consider the competitive impact on the Waterway.

There has been no change in the U.S. laws that govern coasting trade waivers, vessel ownership, and utilization of foreign-built vessels.

The Waterway continues to face a competitive disadvantage with respect to the support and subsidization of alternate transportation routes.

The grain transportation and handling review was limited to acknowledging the Seaway's role in Canada's grain transportation network.

Reviews of grain transportation and handling, climate change, and pilotage services did little to improve the competitiveness of the Waterway.

Regulatory Reform

- 10 Review statutes and regulations impacting the Waterway to ensure efficiency.
- 11 Work with the U.S. to streamline and harmonize marine services and regulatory requirements.

Updating of the Canada Shipping Act and other marine legislation has commenced.

Efforts to rationalize services are taking place with U.S. Coast Guard and certain other U.S. government agencies.

Environmental Recognition

- 12 Recognize the environmental advantages of the marine mode in policy development.

Government policy makers are increasingly recognizing the positive environmental attributes of marine transportation.

Members



ABB Asea Brown Boveri
Abitibi Consolidated Inc.
ABS Americas
ADM-Agri Canada Limited
Aegean Maritime Inc.
Agemar Inc.
Agence de pétroliers océaniques
AGP Grain,Ltd.



Agrium Inc.
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Alcan Shipping Services Ltd.
Alcan Smelter and Chemical
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Algoma Central Corporation
Algoma Central Marine
Algoma Steel Inc.
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Alliance Grain Inc.
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Aluminium Industry Association
American Great Lakes Ports
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AML Cruises
Andersen-Sima Maritime Inc.
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Aon Reed Stenhouse Inc.
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Ateliers Oméga
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Atlantic Maritime Agency Inc.

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Atship Services Ltd.
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B & K Shipping Agency Limited
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Bank Line
Bateau-Mouche de Montréal
Bateaux Alouette

Bateliers de l'Écluse
Bay Ocean Management,NJ
Bethlehem Steel Corporation

Biddy-Harrisons Shipmanagement Services

Black Swan Inc.
Blue Circle Cement
Borden Ladner Gervais
Bouchard & Blanchette Marine
BPB - Westroc Inc.
Braden Marine inc.
Bromley Maritime Inc.
Bull Marine Services Inc.
Bunge of Canada
Bureau Veritas
Business Development Bank of Canada
Byzantine Maritime
Cagema
Canac International Inc.
Canada Marine Pilots Association
Canada Maritime Agencies Limited
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Canadian Gypsum Company Inc.
Canadian Industrial Transportation Association
Canadian Maritime Agency Ltd.
Canadian Merchant Service Guild
Canadian Salt Company Ltd.
Canadian Shipbuilding & Engineering
Canadian Transport (N.Y.) Inc.
Canadian Wheat Board
CanAmera Foods
Canarctic Shipping Company Limited
Canbulk Shipping
Canfornav Ltd.
Canmer Navigation Inc.
Cargill Ltd.
Cast (North America) Inc.
CCAL (Canada) Inc.
CCNI
Centre du camion St-Henri
Cerescorp
Champlain Maritime Agency
Charter Marine Transportation Co.
Château Frontenac
Chevron
China Ocean Shipping Company
Chowgule Steamships Ltd.
Choyang Line
Christensen Shipping Corporation
CIBC
CLD - Rivière-du-Loup
Cleveland-Cuyahoga County Port Authority
Cleveland-Cliffs Inc.
Cleveland Tankers
Clipper Americas
Clipper Cruise Lines
Clipper Elite Carriers Americas
Clipper inc.

CMA/CGM
 CNAN
 Coastal States Petroleum Ltd.
 Cobam NV
 Cobelfret (Cie Belge D'affretements NV)
 Colley Motorships Ltd.
 Colonial Navigation Co. Inc.
 Columbus Line Canada Ltd.
 Compagnie de gestion de Matane (COGEMA)
 Compass Marine Services Inc.
 ConAgra Grain, Canada
 Consol Inc.
 Construction Aggregates Corp. of Michigan
 Consultants F Drapeau
 Coopérative de transport maritime et aérien (C.T.M.A.)
 Corporation des pilotes du Bas-Saint-Laurent
 Corporation de port Rimouski-Est
 Corporation portuaire de Gaspé
 Corus PLC
 Cosco (Breakbulk)
 Croisières Lachance
 Croisières Marjolaine
 Croisières Richelieu
 Cross Marine Inc.
 Crowley American Transport
 Crowley Liner Services
 Cunard Line
 Cunard Shipping Services Ltd.
 Currie Maritime Corporation (CMC)
 Daiichi Chuo Shipping
 Dan-Gulf Shipping Inc.
 Dauphins du Saint-Laurent
 Del Bene S.A.
 De Man, Pilote
 Dencan Marine Ltd.
 Det Norske Veritas
 Detroit/Wayne County Port Authority
 Diamantis Lemos Ltd.
 Diamantis Pateras Ltd.
 Docenave
 Dofasco Inc.
 Dole
 Dowa Line of America Co. Ltd.
 Dunton Rainville
 Eastern Canada Towing Ltd.
 Eastern Car Liner Ltd.
 Ecomertours Nord-Sud
 Eimskip-The Iceland Steamship Co. Ltd.
 Élévateurs de Sorel
 Élévateurs de Trois-Rivières
 Emdena Chartering, Hamburg
 Enron
 Erie-Western Pennsylvania Port Authority
 ESSROC Cement Corporation
 Étude légale Guy Vaillancourt
 Euroatlantic Container Line
 Excursions maritimes de Charlevoix
 F. K. Warren Ltd.
 Falconbridge Nickel Mines
 Federal Atlantic Lakes Line
 Federation of Japan Tuna Fisheries
 Fednav Limited
 Finncarriers OY AB
 Fiona Maritime
 Fisheries and Oceans Canada (through membership in SODES)
 Florida Fuels Inc.
 Flynn Rivard
 Forbes Inc.
 Foresteel Lines
 Fratelli D'amico Armatori
 Frota Amazonica
 F-Ships
 Furncan Marine Ltd.
 G. & A. Bourque
 G.R. International Inc.
 Garnac Grain Company
 Gearbulk-Saint John
 Gefo Gesellschaft Fuer OelTransport Mbh
 General Chemical Canada Ltd.
 Gibson Canadian & Global Agency Inc.
 Global Container Lines
 Goodfellow Shipping Agencies Ltd.
 Gorthon Lines
 Great Circle Shipping Agency Ltd.
 Great Lakes European Shipping
 Great White Fleet
 Gresco Ltée
 Groupe Desgagnés Inc.
 Groupe Dufour
 Groupe Mallette Maheu
 Groupe Océan
 H. Dantas Com. Navegacao Ind. Ltda.
 H.E. Kane Agencies Ltd.
 Halifax Grain Elevator Ltd.
 Hamburg Sud
 Hamilton Harbour Commission
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 Hannah Marine Corp.
 Hapag-Lloyd (Canada) Inc.
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Holmes Maritime Inc.
HUAL
Hydro-Québec
Hydrotech Marine (EBC Division)



I.C.E. Transport Co. Inc.
I.H. Mathers & Son Ltd.
Illinois International Port District
IMC Kalium Canada Ltd.



IMC Salt
Imperial Oil
IMTT-Québec
Inchcape Shipping Services
Indiana's International Port
Inland Lakes Management Inc.



Institut maritime du Québec
Interlines Shipping (Canada) Ltd.
Intermarine Inc.
International Association of Great Lakes Ports
International Chartering Services Inc.
International Multimodal Transport



International Paint
Intership (Canada) Ltd.
Interunion Navegacao Ltda.



Irano-Hind Shipping Co.
Irano-MISR Shipping Co.
Iron Ore Company of Canada
Islamic Republic of Iran Shipping Lines

ISPAT Inland Inc.
ISPAT Sidbec Inc.
Iver Bugge Management
J. Poulsen Shipping
James Richardson International Ltd.

Japan Line
Jebsen - Hartmann International
Jo Tankers
Johan G. Olsen

Jugo Oceanija
Jumbo Navigation N.V.
K Line Canada Ltd.

Kawanishi Warehouse
Kerr Norton Canada
Keystone Coal Company (Canada)
Klaveness Group

Klockner Steel Trade Corp.
Knud I. Larsen
Koch Carbon Inc.

Kuehne & Nagel International Ltd
Kursiu Linija
Laden Maritime Inc.

Lafarge Canada Inc.
Lafarge Corp. - Cement Group US Region
Lakehead Shipping Co. Ltd.

Langlois Gaudreau

Lars Jonsson Trading AB
Lauralco Trois-Rivières
Laurentian Pilotage Authority
Leif Hoegh & Company A S
Lillis Marine Agencies Ltd.
Logistec Corporation
Louis Dreyfus Canada Ltd.
Lower St. Lawrence Ocean Agencies Ltd.
Luscar Ltd.
M.T. Maritime Management Inc.
Maersk Bulk
Maersk Sealand
Malaysia International Shipping Corporation, Berhad
Mammoet Shipping B.V.
March Shipping
Marietta Industrial Enterprises Inc.
Marinexec
Maritime Canada Shipping
Mar-Ocean Brokers Inc.
Maruba SCA
Matson Pacific Coast Service
MCA Marine and Cargo Agencies Ltd.
McAllister Towing & Salvage Inc.
McAsphalt Industries Ltd.
McKeil Marine
McLean Kennedy Inc.
McMaster Gervais
Melfi Marine Corporation
Metrofin Ltd.
Metz Maritime Inc.
Mid Continent Coal & Coke Company
Mitsui O.S.K. Lines
Molinos de Puerto Rico Inc.
Montreal Marine Services Inc.
Montréal Valve Reseating
Montship Inc.
Morlines Maritime Agencies Ltd..
MSC (Canada) Inc.
MT Maritime Management Corp.
Municipalité de la Côte-Nord et du Golfe Saint-Laurent
N. M. Paterson & Sons Ltd.
National Navigation Co.
National Shipping Company of Saudi Arabia
National Steel Corporation
Navale Transport Vinicoles Leduc
Navigation Lavoie Inc.
Navigation Maritime Bulgare
Navigation Sonamar Inc.
Navinvest Marine Services (USA) Inc.
Navion Shipping AS
Navitas Compania Maritima S.A.
Navitrans Shipping Agencies Inc.
Nederlandse Bevrachting en Agentuur Maatschappij B.V.

(Nebam)
Neptune Orient Lines (NOL)
Newco Ferrous
Nissan Motor Carrier Co. Ltd.
Noranda Inc.
Norasia
Norbulk Ltd. Glasgow
Nordana Line
Nordic Canadian Shipping Ltd.
Norsul Internacionl SA
Norsul, CIA de Navegacao
Nortec Marine Agencies Inc.
Northern Lime Limited
Norwegian Cruise Line
NSCSA
NV Bocimar S.A.
NYC NOS RO RO
NYK (Canada) Line
Oceanex (1997) Inc.
Oceanic Tankers Agencies Ltd.
Offshore System International
Omnisource Corporation
OMYA Inc.
Ontario Power Generation Inc.
Ontario Trap Rock
OOCL (Canada) Inc.
Orssleff EFTF A/S
Osborn & Lange Inc.
Oshawa Harbour Commission
Parrish & Heimbecker Limited.
P & H Shipping
P & O Cruises, Southampton
P & O Nedlloyd Container Line
Pakistan National Shipping Corporation
Palmer Johnson
Pan Ocean Shipping Company Ltd.
Paramount Enterprises International Inc.
Peter Dohle Schiffahrts - KG
Petro-Canada Products
Pilotes du Saint-Laurent Central
Pol-E-Mar Québec
Poros Shipping Agencies Inc.
Port of Milwaukee
Port of Montréal
Port of Oswego
Port of Québec
Port of Sept Iles
Port of Thunder Bay
Port of Toronto
Port of Trois-Rivières
Port of Valleyfield
Port of Windsor
Port Saguenay

Precious Shipping Public Company Ltd.
Premier Cruise Line
Presque Isle Corporation
Princess Cruises
Pronav Sciffahskontor GmbH
Protos Shipping Ltd.
QIT- Fer et Titane Inc.
Quebec Cartier Mining
Québec Forest Industry Association
Québec Marine Trade Association
Quebec Stevedoring Company Ltd
Québec Urban Community
Ramsey Greig and Co. Ltd.
Range Grain Company Ltd.
Rederi A.B.Sea-Link
Redpath Sugars
Reederei Wester-Schiffahrts Agentur GmbH & Co.
Reefer Express Lines (PTY) Ltd.
Reformar
Regal Cruises
Reliance Shipping Ltd.
Rivière-du-Loup / Saint-Siméon Ferry
Robert Reford
Robin Maritime Inc.
Roche Groupe conseil
Rosedrop Shipping - Limassol
Rouge Steel Company
Royal Arctic Line
Royal Caribbean Cruise Line
Royal Viking Line
S.A.L.(Schiffahrtskontor Altes Land BmbH Co.)
Sam Vézina
Samer & Co. Shipping SRL
Sani-Mobile
Santana Maritime Inc.
Saskatchewan Wheat Pool
Scandia Shipping Agencies Inc.
Scanscott Shipping Services (Deutschland) GmbH
Scantech inc.
Scotiabank
Seabourn Cruise Line
Seachart Marine Inc.
Seagulf Marine Industries
Sealion Ship Management
Seamar Shipping Corporation
Seaside Navigation APS
Seatrans - Ermefer Tankers
Seaway Marine Transport
Seaway Port Authority of Duluth
Senator Lines
Services Delmare
Services Subaquatiques BLM Inc.
Shell Canada Products Ltd.



Shinwa Kaiun Kaisha
Shipowners Assurance Management
Shipping & Logistics Services,L.L.C.
Shipping Corporation of India



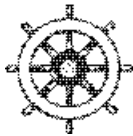
Sico Inc.
Sifto Canada Inc.
Silos Port Cartier
Silversea Cruises,Ft.Lauderdale



Simec Ltd / Québec Division
Sinotrans
Skaarup Shipping International Corporation
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Somarelf
Somavrac
Southern Star Shipping
Southwestern Sales Corporation Limited



Spliethoff's Bev.
Sproule Castonguay Pollack
St.Lawrence Cement
St.Lawrence Seaway Management Corporation
Star Shipping (Canada) Ltd.

Statkorn
Statoil
Stelco Inc.
Stentex
Stikeman Elliott
Stolt Parcel Tankers Inc.
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Thunder Bay Terminals Limited
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Torm Lines
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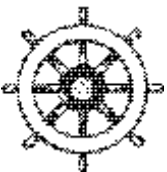
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