

Marine Transportation in Ontario
A Study
on behalf of the OMTF
and the
Province of Ontario
The Mariport Group Ltd.




Mariport & Team

Mariport assembled an expert team, including: William Sharpe, David Hackston, David Hinks, Rod Taylor, John MacDonald




Study Progress

Work commenced on 2nd October.
Sections circulated as completed.
Full draft, excluding executive summary, on 5th Nov.
Final draft delivered on 13th Nov.



Scope of Work


1. Introduction and Objective
2. Executive Summary
3. Issues and Opportunities
 - 3.1 Infrastructure optimization & inter-modal efficiency
 - 3.2 Economic developments & enhanced trade opportunities
 - 3.3 Environment & safety, opportunities for enhancements
 - 3.4 Intergovernmental affairs
 - 3.5 Provincial benefits of implementing marine & inter-modal opportunities
 - 3.6 Data information & gaps



Presentation

Intend to briefly cover each aspect of the study.


Will include short introduction to each section.



Introduction

Outlines the rationale for the study and sets existing marine activity into perspective

- Ontario ports handled 78m tonnes of cargo in 2002
- Marine industry economic contribution between \$2.2-4bn
- Direct employment estimated 17,500-20,000 persons





1-Objective of study

To pull together an overview of opportunities in new marine freight and passenger transportation services, to provide input to the working group on possible policy options as well as potential action areas.



2-Executive Summary

Provided an extended summary of the main report, for ready reference



3-Issues & Opportunities

- 3.1 Infrastructure optimization and inter-modal efficiency
- i) Marine transportation opportunities in Ontario
 - ii) Marine transportation infrastructure capacity
 - iii) Inter-modal opportunities
 - iv) System benefits and costs
 - v) Impediments to the marine mode



Marine Transportation Opportunities in Ontario

- Mainly truck ferries
- Some tourism related
- About 2.5 million tonnes of low value bulks
- Auto movements
- Container and break bulk



Truck Ferries

- Three routes are under serious consideration
- These routes could divert 250,000 each way truck moves from the border at start up capacity
- Capacity could be readily doubled
- Total market potential 1-1.5 million truck moves



Tourism Related

- Ferries between Toronto and Niagara feasible if craft built for route. Total traffic 2-3m person trips per year
- Ferries to serve Manitoulin Island
- Three possible seasonal routes on Lake Erie



Low Value Bulk

- Cargo identified as being trucked to/from Ontario and Great Lakes states
- Could be diverted to tug/barge or small bulk carrier carrying less than 10- 12,000 tonnes
- Other opportunities with salt from Ontario into Michigan and Wisconsin





Auto Movements

- Possible shipment of finished automobiles from Oshawa to on rail in Oswego
- Potential for 100,000 vehicles per year

Container and Break Bulk

- Opportunity for direct transatlantic shipments into the Great Lakes
- Possibility of feeder service from Halifax
- Appears to be some movement in this direction
- Empty containers by barge to tidewater on behalf of railroads

Marine Transportation Infrastructure Capacity – Fleet and Seaway

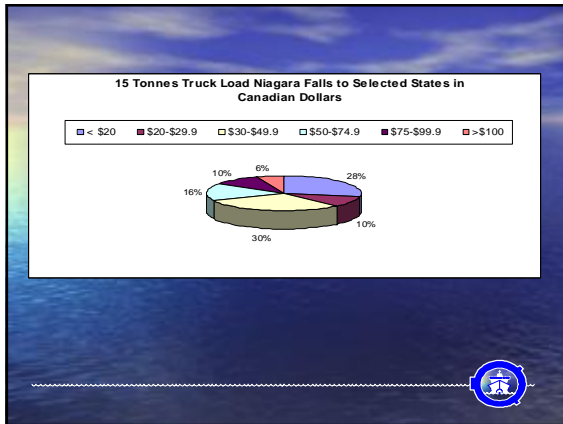
- Seaway is operating at less than 50% of capacity
- In 1966 handled 10,615 ship transits, in 2005 there were 4,361 transits
- Fleet has capacity to meet large bulk movements
- No current capacity to meet small parcel or ferry demand

Marine Transportation Infrastructure Capacity - Ports

- Ports generally have capacity to handle more ships
- May not all have the ability to move cargo off the dock because of access restrictions through urban areas
- Actual capability not known. Last Ontario Ports Master Plan was in 1983

Inter-modal Opportunities

- Almost all marine moves are as part of a logistics chain that includes truck or rail at some point.
- Shippers seeking reliability in supply chain. Speed and cost less critical.
- There is some truck/rail inter-modal activity
- Little likelihood of new rail/marine, except for empty containers



- ### System Benefits and Costs
- The marine mode is generally recognized as more fuel efficient, safer and less polluting than other modes
 - There are data gaps and anomalous marine data in major reference works
 - Based on partial data, one truck ferry is estimated to deliver \$230/truck in societal benefits and \$200 in cost savings
 - Passenger ferry from Toronto to Niagara indicates \$10 million benefit/year on less than half the market



- ### Impediments to the Marine Mode
- Several Canadian and US regulatory impediments
 - Non-regulatory issues relate to lack of visibility of the marine mode, lack of a coherent federal strategic plan for marine and subsidization of routes that compete with the Great Lakes. Low water levels also seen as growing problem.

- ### Impediments - Canadian
- CBSA cost recovery for border services
 - Tariff and non-tariff barriers on importing ships
 - Limits on passenger services caused by the CTA
 - Port fiscal issues due to the CMA
 - Crewing standards well in excess of international practice
 - User fees and dredging issues
 - Imposition of compulsory pilotage on domestic services

- ### Impediments - USA
- HMF ad valorem fee on marine cargoes. *Affects US domestic as well as international trade.*
 - Pilotage issues consequent to OPA90 that increases costs for foreign flag ships
 - Definitional issues regarding ferries and cargo vessels

3.2 Economic Development and Enhanced Trade Opportunities

- i) Ports as catalysts for growth
- ii) Opportunities for economic development nodes
- iii) Congestion-related impediments to Ontario's economic growth
- iv) Municipal & regional interaction with marine
- v) Marine Opportunities for tourism and recreational activity
- vi) The marine mode in other jurisdictions



Ports as Catalysts for Growth

- Ports act as gateways for community and hinterland
- Activities have spin-off benefits locally and regionally
- Ports actively working to develop new business
- Nanticoke to Erie ferry could act as catalyst for regional development around the Stelco steel plant
- Economic multipliers can be as high as 2.5



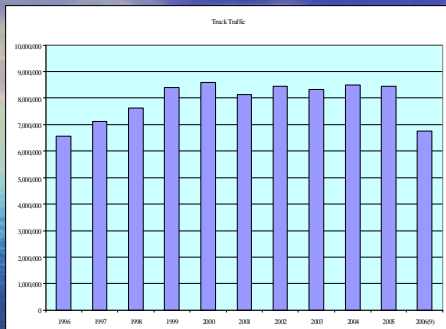
Opportunities for Economic Development Nodes

- Looked at Halifax and Vancouver Gateway Councils and compared them with South Ontario Gateway Council (SOGC)
- Halifax and Vancouver highly focused in facilitating trade through their ports.
- May be opportunity for Ontario ports by exploring port mergers in the way that three BC lower mainland ports are moving



Congestion related Impediments to Ontario's Economic Growth

- Canada gross border traffic in excess of \$1 billion/day
- Ontario's share 60% and 70% of trade carried by truck
- Ontario Chamber of Commerce estimated congestion cost Ontario economy C\$5.25 billion in 2002
- Much of congestion impact was at the border, but road capacity, particularly in urban areas, cannot be easily expanded
- Railroads do not have capacity constraints except at inter-modal yards in GTA



Municipal and Regional Interaction with Marine

- CMA limits ports to activities directly related to operations
- No longer able to bank land and expand beyond the dock wall
- Much of land needed for ancillary activities subject to municipal regulations
- Ports need a strong working relationship if the port is to deliver economic benefit to the community



Marine Opportunities in Tourism and Recreation

- Tourism key economic generator for province
- Marine covers recreational boating, tour boats, ferries, cruise
- Impediments identified have impacts on all but recreational boating
- New ferry, tour and cruise activities can bring economic benefit to communities
- Two opportunities identified in Northern Ontario



Marine Mode in Other Jurisdictions

- Two provinces, British Columbia and Quebec have well articulated strategies for marine
- Also discussed approaches in US, Europe and Singapore
- The European Union estimates €6 return for every €1 spent through their Marco Polo "Motorways of the Sea" programme
- Challenges identified in other jurisdictions are directly relevant to Ontario.



3.3 Environment and Safety, Opportunities for Enhancement

- i) Marine mode fuel efficiency
- ii) Marine mode emissions
- iii) Best Practices and Safety
- iv) Ballast water treatment



Marine Mode Fuel Efficiencies

- Based on tonne km data marine is:
 - 2.2 times more efficient than rail
 - 9.7 times more efficient than truck
- New ships with more fuel efficient engines could improve on these figures



Marine Mode Emissions

- Lakes diesel engine vessels do not burn Bunker C residual fuel
- Lakers generally burn fuel with lower sulphur content than required in new regulations
- Vessels can install scrubbers or catalytic converters and use additives to reduce emissions of a wide range of pollutants
- Scrubbing systems and additives are available from Canadian companies and are applicable to the Lakes



Best Practices and Safety

- The marine mode is highly regulated relative to safety, security and environmental practices
- Great Lakes operators have voluntarily introduced quality and safety standards to international levels
- Very low incident rates relative to other modes are attributable to these practices
- Ports and tenants are introducing environmentally sensitive buildings, eg LEED steel warehouse in Hamilton



Ballast Water Treatment

- Non-indigenous marine organisms introduced through international vessel ballast water have caused significant damage and remedial expense.
- Transport Canada introduced voluntary guidelines in 1989. USCG mandated ballast water exchange in 1993
- Exchange only a partial solution, IMO has been working on a treatment approach, leading to an international convention



3.4 Intergovernmental Affairs

- Suggested approaches to the impediments
- Desirable, for their resolution, for province to partner with industry, provinces and US state agencies to pressure federal authorities for change



3.5 Provincial Benefits of Implementing Marine & Inter-modal Opportunities

- i) Greater provincial role in Marine and inter-modal opportunities
- ii) Enhanced relationships with other jurisdictions
- iii) Better public relations
- iv) Promotion of marine education and career opportunities



Greater Provincial Role in marine

- No current, consistent data on economic benefit for marine in Ontario. Range indicated \$2.2-4 billion
- Quebec benefit \$3.1 billion in 1998
- Quebec has just renewed its commitment to the marine mode with \$21 million over five years for infrastructure and inter-modality.



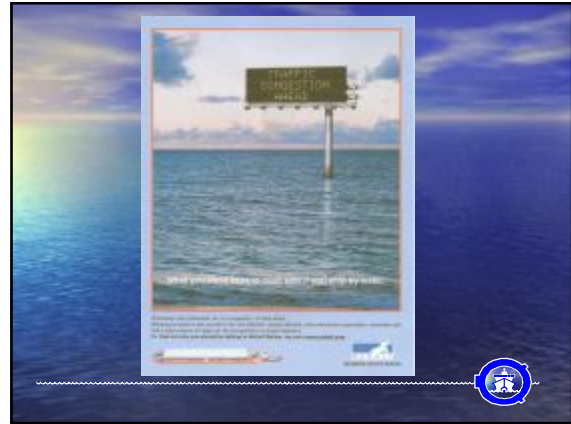
Enhanced Relationships

- Closer ties with Quebec and British Columbia could be helpful in pressuring the federal government on a range of issues
- Ontario could usefully consider joint development of a broad strategic plan for the Great Lakes, involving Quebec and Great lakes states
- Resolution of US and Canadian impediments would be a component of the plan



Better Public Relations

- Marine mode effectively invisible to the public
- Very little activity in promoting the marine mode since Seaway opened in 1959
- Current efforts by SLSMC with Highway H₂O and McKeil Marine step in the right direction.
- Invisibility affects recruitment for seagoing personnel and commercial marine operations



Promotion of Marine Education

- Two areas needed: Seagoing and Commercial
- Seagoing covered by several institutions across Canada: Georgian College at Owen Sound is the only Ontario college. Needs estimated \$8 million in upgrades
- Commercial side covers logistics, transport intermediaries, financial institutions and ship management



Data Information and Gaps

- No baseline data on Ontario ports
- Contradictory and dated information on marine industry economic benefits
- Poor and/or equivocal data on marine industry societal impacts
- Lack of data on congestion costs and road wear and tear

