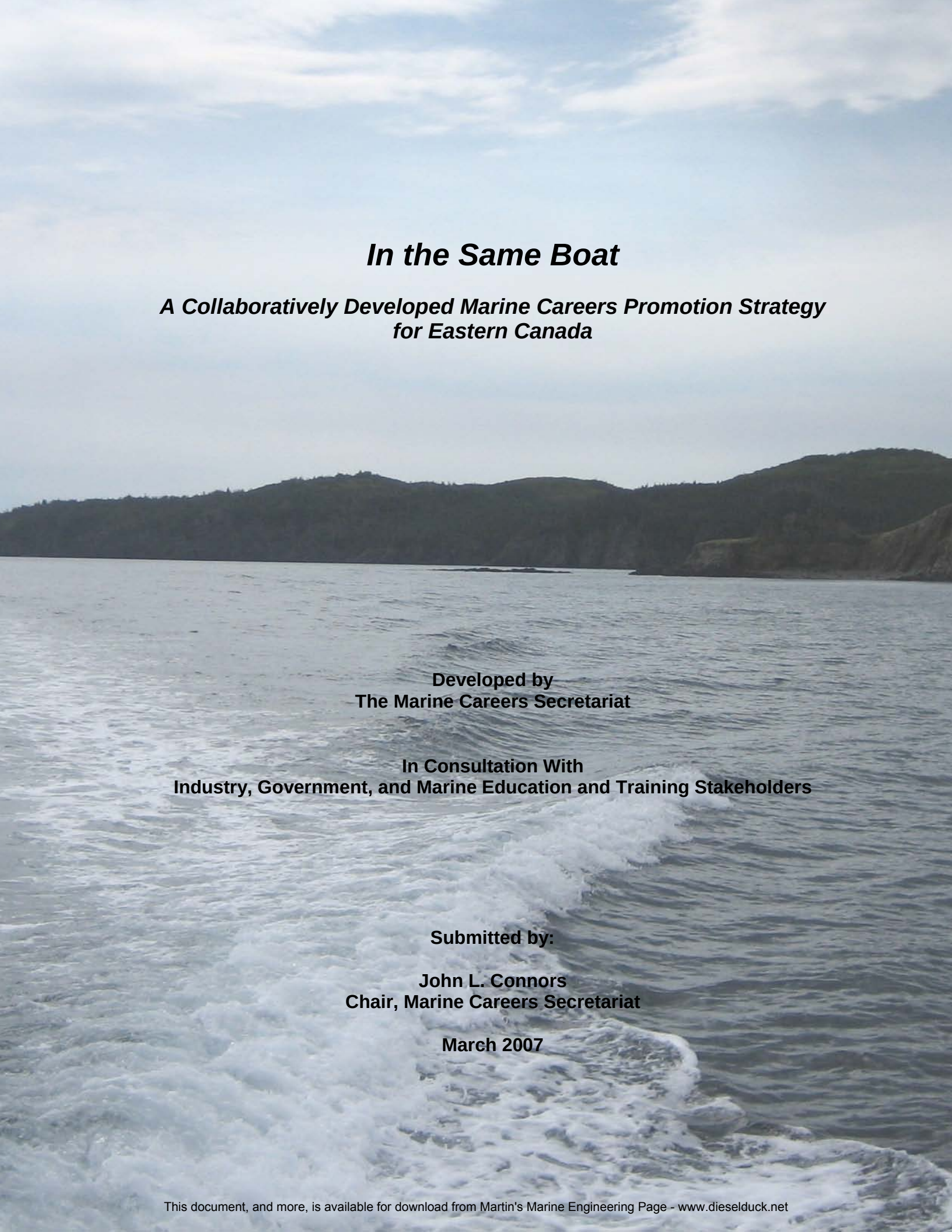

In the Same Boat

A Collaboratively Developed Marine Careers Promotion Strategy for Eastern Canada

Developed by
The Marine Careers Secretariat

In Consultation With
Industry, Government, and Marine Education and Training Stakeholders

Submitted by:

John L. Connors
Chair, Marine Careers Secretariat

March 2007

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Acknowledgements

The Marine Careers Secretariat would like to acknowledge, and express its gratitude for, the vision and commitment of all who are collectively responsible for the development of *In the Same Boat: A Collaboratively Developed Marine Careers Promotion Strategy for Eastern Canada*.

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- The marine industry professionals who contributed to *Marine Career Opportunities in the Marine Transportation and Offshore Petroleum Industries in Eastern Canada*; the students, parents, and educators who participated in the *Public Perception Survey: Career Opportunities in the Marine Industry in Newfoundland and Labrador*; and the consultants who undertook those studies – Strategic Directions Inc., and the P.J. Gardiner Institute of Memorial University;
- The marine stakeholders who provided input and insight through the Marine Careers Symposium, the Marine Stakeholder Consultation, focus group meetings, and direct correspondence;
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    John L. Connors,
    Chair, Marine Careers Secretariat
    March, 2007

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Volume 2 ***Ranges and Bearings: Setting a Course***

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In the Same Boat

A Collaboratively Developed Marine Careers Promotion Strategy for Eastern Canada

Executive Summary

Volume 1 *Rocks and Shoals: Finding a Way*

Turn of the century marine workforce studies (local and international) uniformly indicated a growing worldwide downturn in the availability of marine personnel at a time when the marine transportation and offshore petroleum industries in Eastern Canada were beginning to experience significant growth.

These studies clearly indicated a serious recruitment challenge for marine related industries, but they also identified a significant human resource development opportunity for Eastern Canada, which enjoys a unique advantage in having a strong maritime heritage and an internationally recognized marine training capability. The factors inhibiting Eastern Canada's ability to take full advantage of the opportunity provided by the growing shortage of marine personnel included training capacity, public awareness, and the lack of a cohesive approach to addressing human resource issues in the marine sector.

The Marine Careers Secretariat was established in 2002, with funding from the Canada/Newfoundland Labour Market Development Agreement (LMDA), as a catalyst for development of a cooperative partnership among industry, government agencies, and training institutions to promote marine career and training opportunities, profile the industries' importance to the local economy, and assist marine organizations in addressing their human resource needs.

The primary objective of the Marine Careers Secretariat has been to develop a marine careers promotion strategy and action plan to address the human resource issues of marine industries in Eastern Canada and to enable the region to take full advantage of the career opportunities presented by current and projected personnel shortfalls and projected industry growth.

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To ensure a strategy and action plan grounded in reality, the Marine Careers Secretariat determined to ascertain the extent of the opportunities and the challenges, together with the public perceptions of marine careers.

To this end, the Secretariat commissioned a study of labour demand and supply in occupations related to marine transportation and offshore petroleum development (*Marine Career Opportunities in the Marine Transportation and Offshore Petroleum Industries in Eastern Canada*) and a study surveying the perceptions of high school students, parents, and educators in Newfoundland and Labrador (*Public Perception Survey: Career Opportunities in the Marine Industry in Newfoundland and Labrador*). Both studies were completed in December, 2004.

The key findings and recommendations of these studies, summarized in Volume 1 of this report (2.2 Research Studies), provided the impetus for commissioning a *Marine Careers Marketing and Communication Strategy*, undertaken by the Bristol Group and completed in June 2005. This document was then presented to senior Marine Institute and key industry stakeholders through focus group meetings.

Industry stakeholders concluded that the proposed strategy was too narrow in scope, focused too heavily on a media campaign designed primarily to enhance the image of the industry, would not adequately address critical systemic issues, did not provide effective mechanisms for evaluating success, and was too costly for the anticipated benefits. They recommended that an effective strategy for promoting marine careers should be developed through more active collaboration with industry and other marine stakeholders.

In response to this recommendation, the Marine Careers Secretariat scheduled a *Marine Careers Symposium* for May 2006 in order to obtain direct and focused input from key stakeholders (industry, education and training institutions, and relevant federal and provincial government departments and agencies) that would drive the development of an effective promotion strategy to address the key human resource issues identified by its pair of studies and other relevant reports.

The half-day symposium reviewed the key findings of the marine career opportunities and public perception studies, and highlighted the key human resource issues (*Industry Shortages/Challenges; Future Supply: Today's Students; Gender Equity; and Education and Training*) that would provide the

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framework for symposium discussion. This was followed by an interactive discussion involving a panel of three (representing industry, training institutions, and government) and the symposium participants.

Marine stakeholders have not traditionally shown a uniform awareness of the magnitude of the workforce shortage it faces, nor demonstrated a keen interest in responding to it in any significant way. The May 2006 *Marine Careers Symposium* was a critical turning point that featured marine stakeholders collectively addressing the human resource issues confronting the marine sector and identifying a broad range of potential responses.

These responses became the basis for development by the Marine Careers Secretariat of a *Marine Careers Promotion Strategy* comprising a series of strategic initiatives designed to address each of the four key human resource issues identified. A number of these strategic initiatives were then selected to form a *Short-Term Action Plan* for implementation over a three-year period.

Marine stakeholders reviewed these initiatives item by item at a *Marine Stakeholder Consultation* held at the Battery Hotel, St John's, NL on February 16, 2007. Participants in the *Marine Stakeholder Consultation* unanimously endorsed the *Marine Careers Promotion Strategy* and the *Short-Term Action Plan* (presented in Volume 2 – *Ranges and Bearings: Setting a Course* of this report) and recommended its acceptance by the Steering Committee of the Marine Careers Secretariat.

Volume 2 *Ranges and Bearings: Setting a Course*

Volume 2 of this report consolidates the suggestions and initiatives proposed by participants of the *Marine Careers Symposium* (including follow-up consultation and communication), together with initiatives arising from the findings and recommendations of the studies commissioned by the Marine Careers Secretariat. These proposals are then shaped into a detailed *Marine Careers Promotion Strategy* comprising a series of strategic initiatives designed to address each of the four key human resource issues identified.

While all strategic initiatives identified represent valid and useful planks in a promotion strategy, it is obviously not possible or feasible to pursue all of them in a short-term action plan characterized by limited resources. Consequently, a number of key strategic initiatives from the *Marine Careers Promotion Strategy* have been selected to create a *Short-Term Action Plan*

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that focuses on addressing to some extent, and in concrete ways, over a three-year period, each of the key issues identified for a marine careers promotion strategy.

Year One

1. Develop a marine careers website and maximize its effectiveness by making it interactive and user-friendly, and by incorporating features such as: links to marine companies; virtual tours of vessels, worksites, and training facilities, highlighting attractive facilities and amenities; and employment postings.

2. Develop collaborative arrangements with youth-driven organizations such as Junior Achievement (JA) and Futures in Newfoundland and Labrador Youth (FINALY!) to increase youth awareness of marine career opportunities through avenues such as the FINALY! website, newsletter, and proposed rural community channel TV show.

3. Make more effective use of secondary school curricula by contributing to the development of marine-related applications in courses such as mathematics and science, ensuring the continuing relevance of the marine career component of Career Development 2201 (NL), promoting the delivery of Marine Technology 2228 in selected schools (NL), and investigating the existence of/potential for similar curriculum initiatives in other Eastern Canada provinces.

4. Develop and disseminate promotional materials (print), both general and female-specific, focusing primarily on critical shortage career opportunities.

5. Work with the Provincial Government initiative “Getting the Message Out” to increase awareness of career opportunities in the marine sector. Primary target audiences will include youth in both secondary and post-secondary schools as well as key influencers.

6. Lobby for, and contribute to, the establishment of a National Marine Sector Council.

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Year Two

1. Implement a marine careers promotion campaign utilizing community TV channels.

2. Develop, with appropriate input from industry and Transport Canada, clearly defined career ladders ("A Marine Careers Guide") that will provide professional quality information on marine positions, working conditions, compensation, certification requirements, etc.

3. Develop and distribute to media outlets, schools, and other relevant agencies a series of marine sector human interest stories.

4. Develop and implement a program of "Educator Forums" designed to familiarize secondary school educators with the requirements and benefits of marine careers.

5. Establish entrance targets for women in marine careers and implement specific measures to achieve them.

6. Lobby for, and contribute to, implementation of a first-year course at Memorial University to introduce students to marine studies

Year Three

1. Plan and implement a major marine symposium/conference to highlight the contributions of the marine transportation and offshore petroleum industries to the region's safety, environment, economy, and recreation; and to focus on marine career opportunities.

2. Develop and implement a comprehensive multi-media advertising campaign focusing on the benefits of a marine career and counteracting popular misconceptions.

The *Short-Term Action Plan* comprises the initiatives of an effective, feasible, cost-effective, and relevant short-term strategy and provides for an implementation plan that will identify:

- objectives and projected outcomes
- roles and responsibilities of key stakeholders
- resource requirements (human, physical, financial) for individual strategic initiatives

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- appropriate partnership/collaboration arrangements
- timelines for individual strategic initiatives
- control/evaluation procedures
- mechanisms for ongoing stakeholder input, support, access, and effective communication
- methodology for development/acquisition of individual initiative/response components
- coordination/administration
- sustainability requirements
- lobbying requirements

All key stakeholders (industry, education and training institutions, and governments) can derive benefit from an effective and feasible marine careers promotion strategy. The implementation of such a strategy will require ongoing input and support from all key stakeholders.

The stakeholders who have contributed so actively to the development of this strategy clearly do not want it to become nothing more than a report that gathers dust on office shelves. While it would be tempting to believe that stakeholder representatives, either individually or collectively, will, on their own initiative, implement many of the strategies outlined in this report, it would also be naive and unrealistic. There is no cohesive association or organization to represent the interests of the industry as a whole. Likewise, no one stakeholder group has the cohesion, resources, and motivation to spearhead a unified approach to implementation of *In the Same Boat: A Collaboratively Developed Marine Careers Promotion Strategy for Eastern Canada.*

Crucial to the success of the strategic initiatives developed as a result of marine stakeholders' proactive leadership is a catalytic organization representative of all stakeholders and acting on behalf of the industry as a whole, to coordinate, administer, and oversee implementation of those initiatives.

The Marine Careers Secretariat is hopeful that successful implementation of the *Short-Term Action Plan* presented in Volume 2 of *In the Same Boat: A Collaboratively Developed Marine Careers Promotion Strategy for Eastern Canada* will ultimately demonstrate the positive results of a planned and carefully coordinated marine careers promotion strategy. This, in turn, should lead to implementation of the remaining strategic initiatives, together with others that will undoubtedly emerge in the interim, in a more comprehensive long-term strategy characterized by the full support and involvement of all marine stakeholder groups.

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In the Same Boat

A Collaboratively Developed Marine Careers Promotion Strategy for Eastern Canada

Volume 1 *Rocks and Shoals: Finding a Way*

1. Background: Context

1.1 Marine Careers: Demand, Supply, and Opportunity

At the turn of the century when the marine transportation and offshore petroleum industries in Eastern Canada were beginning to experience an upturn, marine sector studies (local and international) uniformly indicated a growing worldwide downturn in the availability of marine personnel (particularly ships' officers). Marine workforce analyses updated every five years by the Baltic and International Marine Council and the International Shipping Federation (BIMCO/ISF) identified a shortfall of 16,000 ships' officers in 2000, with a projected shortfall of 46,000 by 2010. Despite the significant increase in demand, these studies also pointed to a dramatic decrease in supply in OECD countries, with China emerging to supplant OECD countries as the leading supplier of ships' officers.

These studies clearly indicated a recruitment and retention problem for marine related industries, but they also identified a significant human resource development opportunity for Eastern Canada. While residents of OECD countries generally were showing an increasing reluctance to pursue marine careers, graduates of the Newfoundland and Labrador's Marine Institute and other marine training institutions in Eastern Canada were not only showing a willingness to go to sea but were also finding rewarding careers and winning acclaim, both locally and internationally.

The fact that the shift system of shipboard life encourages commuting to work regardless of place of residence has enabled mariners from Eastern Canada to excel nationally and internationally while choosing overwhelmingly to continue residing in their home province, primarily in the rural communities. In doing so, they contribute significantly to economic development and rural sustainability while also gaining the critical international, or deep sea, experience needed to assume leadership positions at home in industries such as those associated with offshore oil development projects.

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A 1998 survey by the Marine Institute of recently graduated ships' officers illustrates the extent to which mariners choose to reside in their home province regardless of where they work.

Table 1
Survey Results: NL Ships' Officer Employment and Residency

Employed Graduates MI Ships' Officer Programs (1995 – 1997)	NL Residency
102	95%

While the shortage of ships' officers is particularly pronounced, developments and projected developments in the marine transportation and offshore petroleum industries in Eastern Canada have created, and continue to create, significant numbers of shore-based marine career opportunities, including management, clerical, design, maintenance, and other technical and technological positions.

Eastern Canada enjoys a unique advantage in having a strong maritime heritage and an internationally recognized marine training capability. The factors inhibiting Eastern Canada's ability to take full advantage of the opportunity provided by the growing shortage of marine personnel and projected industry growth include training capacity, public awareness, and the lack of a cohesive approach to human resource issues in the marine sector.

1.2 Marine Careers Secretariat: Origin, Role, Mandate

Here The Tides Flow – Career Opportunities in the Marine Transportation Industry, a 1999 sectoral study funded by Human Resources Development Canada under the Canada/Newfoundland Labour Market Development Agreement, undertook an extensive analysis of the marine sector's human resource needs and the career opportunities available to Newfoundlanders and Labradorians in the sector. The report recommended that the Province should:

- Increase capacity to deliver marine-related programs of study, particularly those leading to ships' officer certification
- Aggressively market marine career opportunities

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- Increase emphasis on recruitment and retention of more Newfoundland and Labrador students
- Implement a system of sea-placement support for cadets and junior officers
- Address concerns of current mariners regarding access to training opportunities
- Provide support for pursuit of new training opportunities for Newfoundland and Labrador
- Create a mechanism for ongoing industry consultation with educational institutions and government to discuss short-term and long-term trends in industry.

A concurrent positioning paper, *Newfoundland and Labrador Mariners: Contribution to Social and Economic Development and Community Sustainability,* prepared for the Marine Institute by John L. Connors, argued that the Province was well positioned to take advantage of training and employment opportunities in the marine sector and demonstrated that local mariners contribute significantly to economic development and rural community sustainability, to combating out-migration, and to promoting the development of capability in Newfoundland and Labrador in support of the offshore oil and gas industry.

The Marine Careers Secretariat was created in 2002 under the Canada/Newfoundland Labour Market Development Agreement as a catalyst for development of a cooperative partnership among industry, government agencies, and training institutions to promote marine career and training opportunities, profile the industries' importance to the local economy, and assist marine organizations in addressing their human resource needs.

1.3 MCS Objectives and Priorities

The underlying objective of the Marine Careers Secretariat is to enhance Eastern Canadians' awareness of at-sea and shore-based marine career opportunities available to them, including the benefits, incomes, lifestyle and flexibility that these career opportunities provide.

Five key priorities were developed to meet this objective and focus the activities of the Marine Careers Secretariat:

- Undertaking effective recruitment and retention strategies
- Coordinating efforts to access training and funding
- Improving access to information about marine transportation and offshore training programs

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- Providing a mechanism for industry, government departments and agencies, and training institutions to coordinate activities addressing the human resource needs of the marine transportation and offshore industries
- Providing advice and guidance to stakeholders in the planning, development, and delivery of resource requirements.

1.4 MCS Structure

A crucial component of the Marine Careers Secretariat is a Steering Committee comprising representatives of education and training institutions, industry, provincial and federal government departments and agencies, and other agencies. The Steering Committee is responsible for advisory and accountability functions, as well as for enhancing external support for the Secretariat.

Administration of the Marine Careers Secretariat involves a part-time Chair/Facilitator, supported by a Work Group comprising industry, government, and training institution representatives. In-kind operational support has been provided by the Marine Institute.

2. MCS Initiatives

2.1 Strategic Priorities

The Steering Committee determined that the Marine Careers Secretariat's overriding priority should be the development of a strategic plan to promote awareness of marine career opportunities and benefits.

Critical to the development of an effective marine careers promotion strategy would be a thorough and accurate assessment of prevailing public perceptions of the marine transportation and offshore petroleum industries, including the extent and thrust of public awareness of marine career opportunities and benefits.

Moreover, a strategic plan for the promotion of marine careers would have to be built on a solid and comprehensive foundation of documented, reliable, and up-to-date information relating to the specific extent of marine career opportunities in the marine transportation and offshore petroleum industries, both nationally and internationally, and the potential for residents of Eastern Canada to access these opportunities.

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Such information would serve as a basis for enhancing awareness of at-sea and shore-based marine career opportunities and for maximizing access to these opportunities by residents of Eastern Canada. An accurate assessment of occupational demand, supply, and gap analysis information would be a valuable resource to assist in career planning, in determining education and training needs, and in contributing to industry recruitment and retention strategies.

On the basis of these identified priorities, the Steering Committee approved, as the Marine Secretariat's first initiatives, the commissioning of a study of marine career opportunities and the undertaking of a series of public perception surveys. The documented evidence from these initiatives would provide the basis for the development of a clearly focused strategic plan for enhancing the public awareness of marine career opportunities and benefits.

2.2 Research Studies

2.2.1 Marine Career Opportunities Study

The marine career opportunities study, involving both primary and secondary research, and undertaken by Strategic Directions, Inc., was designed to establish clearly the number and nature of career opportunities in the marine transportation and offshore petroleum industries, to identify the major barriers to accessing these opportunities, and to recommend steps to enhance access to marine career opportunities by eliminating or reducing identified barriers.

The scope of the study included at-sea and shore-based occupations in Eastern Canada's marine transportation, offshore petroleum, and repair and fabrication industries. Thirty-two of 53 employers (industry and government) contacted and nine postsecondary education and training institutions participated in the study. Comprehensive HR data were collected from participants between May and December, 2003, and were analyzed in detail in 2004. (The Marine Careers Secretariat aimed for as close to census data as possible for this study. Consequently, timelines for data collection were stretched significantly from original projections because the amount and type of information sought required extensive involvement by already busy participants).

Key deliverables included a profile of the marine sector in Eastern Canada, an accurate identification and analysis of current and projected human resource supply and demand (nationally and internationally), identification

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and analysis of factors affecting personnel recruitment and retention in Eastern Canada from the perspective of employers, and recommendations designed to enhance access to marine career opportunities.

A report, *Marine Career Opportunities in the Marine Transportation and Offshore Petroleum Industries in Eastern Canada*, outlining the study's findings and analysis was presented to the Steering Committee of the Marine Careers Secretariat in December, 2004.

2.2.2 Public Perception Surveys

The public perception surveys were conducted by the P. J. Gardiner Institute of Memorial University's School of Business. High schools were selected from across Newfoundland and Labrador to ensure geographic representation from across the province. Students were selected to ensure gender balance and representation of all three high school levels. Each participating school also surveyed a number of key influencers (parents, teachers, guidance counselors, and school administrators).

The surveys sought to determine perceptions, misperceptions, levels of knowledge, levels of awareness, and attitudes relating to the marine sector and marine careers, including aspects such as salaries, benefits, and career progression; working conditions, lifestyle, and prestige; barriers; gender and visible minority implications; and training requirements and accessibility.

Data were collected during April – June, 2004, and a report, *Public Perception Survey: Career Opportunities in the Marine Industry in Newfoundland and Labrador*, outlining the findings and analysis of the public perception surveys, was presented to the Steering Committee of the Marine Careers Secretariat in December, 2004.

2.2.3 Study Findings: Marine Career Opportunities

Opportunities for Ships' Officers

The BIMCO/ISF *2000 Manpower Update* report indicated that in 2000 there was a shortfall of 16,000 officers, or 4% of the total workforce for the world fleet, and projected that the shortage of officers would increase to 46,000 by 2010 unless there was an increase in training or an improvement in the retention rate of seafarers.

Career opportunities for deck and engineering officers resident in Eastern Canada are available in Eastern Canada and internationally, arising from

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anticipated replacement requirements for the aging population of senior marine officers and projected growth of the marine transportation and offshore petroleum sectors. The thirty-two employers who participated in *Marine Career Opportunities in the Marine Transportation and Offshore Petroleum Industries in Eastern Canada* operate in Eastern Canada, and some operate internationally.

Section I – Employer Survey Results

Deck Officers

Deck, or navigation, officers may choose to follow three at-sea career paths leading to the senior marine certificates *Master Mariner*, *Master Local Voyage* or *Master 350 tonne*. There is mobility/transferability among the career paths with completion of marine training courses and examinations specified by Transport Canada.

Eastern Canada

The results of the employer survey indicate there will be career opportunities for deck officers arising from replacement needs and growth in the industry. The 32 participating employers (accounting for only 60% of the companies contacted, but a much higher percentage of the employees) projected that

- a total of 125 deck officers will leave at-sea positions during the period 2004 to 2008 and 112 during the period 2009 to 2013, for a total of 237 during the ten year period 2004 - 2013.

- growth in the total number of deck officers (excluding cadet positions) they employ will increase 26% (256) by 2008, and a further 13% (151) by 2013 (a conservative estimate that does not account for attrition).

- a total of 43 deck officers will leave at-sea positions with one employer for at-sea positions with another employer during the period 2004 to 2008, and a further 42 during the period 2009 to 2013.

Based on their recruitment experience, the participating employers identified the following deck officer certificates as “difficult to recruit”:

- Master Mariner;
- Master, Intermediate Voyage;
- Mate, Intermediate Voyage; and
- Master, 350 tonne.

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It should be noted that the *Mate, Intermediate Voyage* and *Master, Intermediate Voyage* certificates are prerequisite to the *Master Mariner* certificate, and are required for vessels working internationally. *Mate, Intermediate Voyage* and *Master, 350 Tonne* are the next level certificates to the entry-level certificate *Watchkeeping Mate, Unrestricted* and *Watchkeeping Mate, Restricted*, respectively. In other words, some participating employers are having difficulty recruiting certificate holders who are only one Transport Canada marine certificate beyond the entry-level.

Other labour demand and supply studies relating to the marine industry in Ontario, particularly the Niagara region, and Quebec report increasing demand for deck and engineering officers. The study *Making Waves – A Profile of Career Opportunities in Niagara's Marine Sector* (2000) reported that marine industry employers in Niagara and vicinity faced acute shortages of qualified labour and projected job growth. The Sectoral Committee of the Quebec Marine Industry reported (2002) a real and pressing demand for navigating and engineering officers.

These and other studies recognize the long time frame required to address the shortage of senior marine certificates. The requirement for completion of training and sea service to advance to senior marine certificates is a minimum of seven to eight years.

Other provincial jurisdictions recognize the importance of taking action to address the demand for marine officers. *Let's Not Miss the Boat*, a 2002 marine sectoral profile by the Sectoral Committee of the Quebec Marine Industry, argues that in view of the current age profile of officers and the work and study time required for senior level certification "it is important to develop an aggressive, well designed plan to address the shortage of navigating personnel."

Barriers

The employer surveys identified several impediments to achieving full access to the deck officer career opportunities identified:

- Concern that a "bottleneck" at the beginning of career paths will impede sufficient entry-level opportunities for new recruits, as well as opportunities to advance to higher level certification. For example, at the *Watchkeeping Mate, Unrestricted* certificate level, the entry level for career paths leading to *Master Mariner* and *Master 350 tonne* certificates, many certificate holders are more than 40 years of age.

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- Limited number of opportunities for deep-sea experience, a requirement for the *Master Mariner* certificate.

- Limited work experience opportunities for officer cadets. Fully 50% of participating employers with permanent full-time and seasonal officer certificate positions do not offer cadet positions, for reasons that include:

    - In some unionized organizations, it is difficult for cadets to gain hands-on experience as they are not permitted to perform the tasks/functions of a unionized position; and

    - Crewing companies and vessels operating under contract require the clients' concurrence to hire cadet positions, so the availability of cadet positions is variable.

Engineering Officers

Overview

The age profile of engineering officers indicates that engineering officers in Eastern Canada are significantly older than their deck (or navigation) counterparts. The largest cohort across the spectrum from *Fourth Class* through *First Class Marine Engineer* certificate holders is 41 to 50 years of age. The average age of retirement for engineering officers over the last five years (as reported by participating employers) was 63.

Opportunities

The results of the employer survey indicate employment growth at all marine engineering certificate levels arising from replacement need and industry expansion.

- Participating employers forecast 106 engineering officers will leave at-sea positions during the period 2004 to 2008 and 143 during the period 2009 to 2013 for a total of 249 over a ten-year period.

- Twenty-three participating employers reported 933 engineering officer positions and forecasted increases of 19.7% to 1117 from 2004 and 2008, and by a further 10.7% to 1237 by 2013.

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- Participating employers forecast a total of 44 engineering officers will leave at-sea positions with one employer for at-sea position with another employer during the period 2004 to 2008, and a further 45 during the period 2009 to 2013.

Since Engineering officers are an older group than their deck officer counterparts, and the projected number of new entrants from marine engineering programs is lower than from navigation programs, it is evident there will be better career opportunities at all engineering officer certificate levels than for deck officer certificate holders.

Based on their recruitment experience, the participating employers identified all four engineering officer certificate levels as “difficult to recruit”. *First Class Marine Engineer* and *Second Class Marine Engineer* were most often reported as “difficult to recruit” and were also often also identified as “difficult to retain”.

Barriers

Participating employers identified several factors which negatively impact the recruitment of *First Class* and *Second Class Marine Engineer* certificate holders:

- Shortage of certificate holders (the most frequently) cited reason);
- Availability of opportunities for shore-based employment in other industries;
- Competition with higher compensation offered by other industries such as the offshore petroleum industry;
- Difficulty attracting people to those positions which are seasonal (the majority of positions are full-time); and
- Low number of entrants to marine engineering programs.

Analysis of the employment profiles provided by participating employers indicates a significant bottleneck at *Fourth Class Marine Engineer*, the entry-level certificate, which evidently has become a career position for many.

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Other barriers to recruitment identified by participating employers included:

- Work rotation and leave. Specific issues identified were the lack of an adequate leave system on the Great Lakes and the different at-sea and onshore rotation used by the offshore petroleum industry. Generally, the requirement to be away from home is a disincentive, particularly when shore-based positions are available; and

- Supply and demand. All marine engineering officer certificate levels were identified as “difficult to recruit”.

Other Marine Positions

The survey also focused on at-sea and shore-based positions that did not require Transport Canada certificates, including catering personnel, unlicensed marine personnel, maintenance personnel, and administrative personnel (See *Appendix A: Marine Occupations List*).

Positions identified as “difficult to recruit” to varying degrees by participating employers included:

- Marine Crane Operator with offshore experience;
- Marine Electrical Technician;
- Marine Electronics Technician;
- Instrumentation Technician;
- Marine Superintendent/Operations Manager; and
- Safety Manager.

In the shipbuilding repair and fabrication industry (including fabrication for offshore oil and gas projects), design positions such as naval architect, naval architectural design technologist, marine engineering design technologist, engineering design technologist and draft person/CADD operator were all identified by at least one employer as “difficult to recruit.”

Retention

The most frequently cited factor affecting retention was work rotation and leave, specifically the time away from home. Other factors affecting retention were opportunities for other positions, competitive salary, continuous employment rather than seasonal employment, opportunity to progress in careers, and challenging positions.

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In the shipbuilding and repair industry (including fabrication work for oil and gas projects) retention is affected by sector-specific factors, including the cyclical nature of the work in Canada, and higher salaries and more job opportunities in other countries such as the US for experienced production engineers, draftspersons and architects.

Employment of Females

Participating employers reported a relatively small number of females (146) in at-sea positions, and the majority of these were employed in traditional positions such as cooks, stewards, assistant stewards and caterers, with smaller numbers employed in deck and engineering officer positions and unlicensed marine positions.

The Census 2001 data indicate that 6% (305) of deck officers in Canada were female and of those only 30% (90) worked full-year, full time. Similarly, 8.7% (410) of deck crew in Canada were female and of those only 26% (105) worked full-year, full time. The number of females working as engineering officers or engine room crew in Canada was not available because of the Statistics Canada reporting guideline that if a population is less than 250 in any category, it is not reported.

While a number of participating employers indicated there were no barriers to employment of females in at-sea occupations, the participation rate of females in these occupations was low. Several participating employers reported receiving few applications from females for at-sea positions, and others noted that few females have the required training and experience. In some instances, employers indicated that the lack of separate accommodations on older vessels is a barrier to females.

Labour Supply – Survey Findings

The findings of this and other studies indicate that engineering officer is perceived as a less attractive occupational choice than deck or navigation officer, and demand is outstripping supply. Fewer students enrol in marine engineering programs than in navigation programs, the population of marine engineers is older than their deck officer counterparts, and a greater proportion of the employers participating in the survey reported engineering officers as “difficult to recruit” than deck officers.

While the need, and therefore the opportunity, for engineering officers is greater, the number of graduates forecast from engineering officer programs is lower than for deck officer programs. Modest growth in the number of engineering officer graduates is forecast to the year 2013.

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The most frequently identified factors affecting current and future demand and supply of marine personnel in Eastern Canada were concurrent major projects and growth of the offshore oil and gas industry. Other factors identified include: volume of bulk transport; national transportation policy regarding investment and crewing requirements for the marine transport industry; lower wages for foreign seafarers; decrease in size of the Canadian fleet; and lack of a national strategy to encourage young people to consider marine careers balanced.

Salaries for at-sea and shore-based marine related occupations reported by participating employers compared well to the average employment income in Canada as reported by the 2000 Census.

The findings of the survey and other studies corroborate and reinforce the need to enhance perceptions of marine careers.

Section II – Occupational Age Profiles (Transport Canada Data)

Transport Canada's database of mariners with STCW certificates is believed to provide a reasonably accurate view of valid marine certificate holders. Transport Canada officials reviewed each individual's record to determine highest certificate held and age category, based on a database query made on December 30, 2003.

The numbers do not include holders of certificates who did not possess a valid STCW 95 endorsement. Many seafarers working in Canada possess certificates that are accompanied by Continued Proficiency (CP) Endorsements. Such certificates are valid only for use within Canada and on certain voyages between Canada and the US. The holders of certificates with CP Endorsements and not STCW 95 endorsements were not included.

Deck Officers

Of the 2013 deck officer certificate holders in Eastern Canada reported by Transport Canada, 18% (367) were under 30 years of age, 27% (536) were 30 to 40 years of age, 35% (705) were 41 to 50 years of age, 10% (208) were 51 to 55 years of age and 10% (197) were more than 55 years of age. In short, 55% of deck officer certificate holders were more than 40 years old in 2003.

Of 648 *Master Mariner* certificate holders, the largest group, 45% (294), were 41 to 50 years of age; and approximately 34% of the *Master Mariner* certificate holders were 51 or more years of age, comprising15% (96) in the

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51 to 55 years of age category and 19% (125) in the 55 years of age and older category. In other words, 79% of the Eastern Canada's Master Mariners were over 40 years of age in 2003.

A large number (26%) of *Mate Intermediate Voyage* certificate holders were 41 to 50 years of age, while a total of 35% were 41 or older. This is a high proportion for the second level certificate in the career path to *Master Mariner*.

Approximately 36% (46) of the 126 *Master Local Voyage* certificate holders were over 50 years of age.

A substantial number of *Master Mariner* certificate holders will reach 65 years of age over the next five to ten years, straining the prerequisite *Master, Intermediate Voyage* certificate cohort which can provide only 38% of the current number of *Master Mariner* certificate holders if all of them achieve the higher certification level. This analysis deals only with replacement, assuming no reduction in the size of the industry/fleet. Likewise, it does not address additional personnel requirements to address any growth in demand.

One of the issues in gaining a *Master Mariner* certificate is limited access to deep-sea experience. Senior level positions require deep-sea experience. For example, to progress from a Master Intermediate Voyage certificate to a Master Mariner certificate requires 12 months deep-sea experience, which can not be acquired locally. Also, at this time, experience on floating production, storage and offloading (FPSO) vessels is not recognized as accredited sea time.

Replacement of Deck Officers

Assuming retirement at 65 years of age, which is currently the average age of retirement for deck officers, 25% of *Master Mariner* certificate holders in Canada will retire during the next 10 years, and 78% of these will be Eastern Canada certificate holders.

Twelve percent (332) of the 2815 deck officers in Canada reported by Transport Canada will reach age 65 by 2013. Of the 2013 deck officers in Eastern Canada, 10% will reach age 65 by 2013.

Engineering Officers

Of the 2605 engineering officer certificate holders in Eastern Canada reported by Transport Canada in 2003, 9% (246) were under 30 years of age, 19% (500) were 30 to 40 years of age, 37% (968) were 41 to 50 years of age, 13% (348) were 51 to 55 years of age, and 21% (543) were more than 55 years of

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age. The largest cohort in the engineering officers was 41 to 50 years of age, and fully 71% were more than 40 years of age.

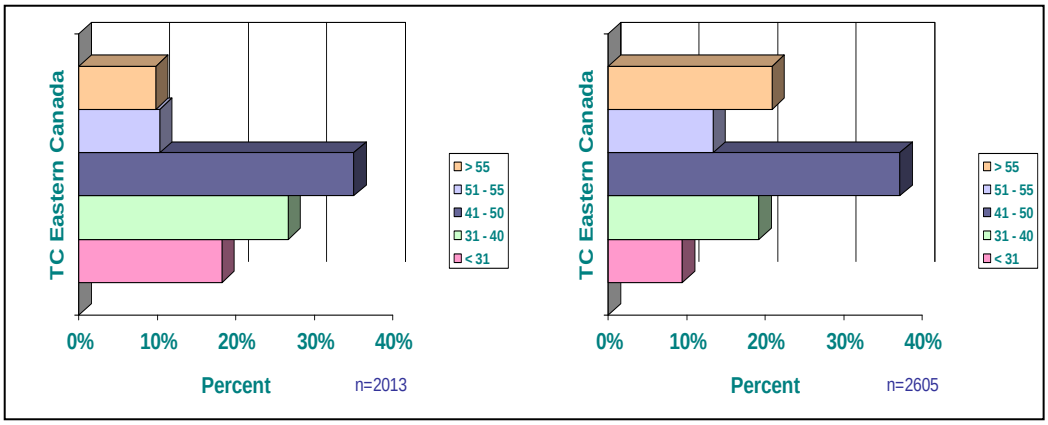

Figure 1
Comparison of Age Profiles for Deck and Engineering Officers

As Figure 1 illustrates, engineering officers are a significantly older group than their deck officer counterparts. Only a relatively small percentage of engineering officers were under 40 years of age in 2003, while fully 21% were more than 55 years of age. This compares with 10% of deck officers in this age cohort.

Equally alarming is the fact that nearly 35% of *Fourth Class Marine Engineer* certificate holders were more than 50 years old, and more than 60% of the holders of this, the entry-level certificate for the marine engineering career path, were over 40 years of age in 2013.

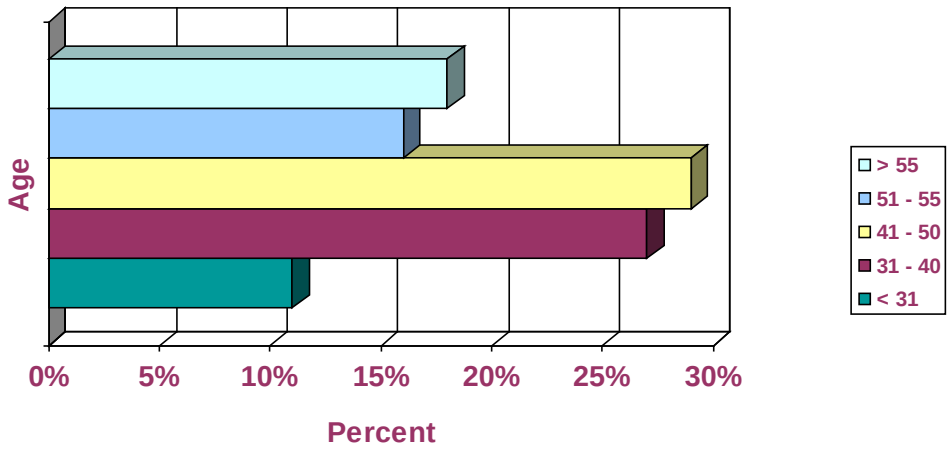

Figure 2:
Bottleneck at Fourth Class Marine Engineering

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Likewise, few *Third Class Marine Engineer* certificate holders were under 31 years of age, and 40% were more than 50 years old. The significant stalling at the *Fourth* and *Third Class* levels represents a serious bottleneck in the career path to *First Class*.

Moreover, the percentages of *Second Class* and *First Class* certificate holders more than 50 years of age were also high, 31% and 39% respectively, indicating a significant future shortage.

Replacement of Engineering Officers

The replacement requirement for marine engineering certificate holders in the next 5 - 10 years will be high at all certificate levels. The number of *Fourth Class Marine Engineer* certificate holders is small and, as indicated above, many are approaching retirement, possibly without advancing farther.

Of the 3,741 marine engineers in Canada holding Transport Canada certificates (with STCW) in 2003, 22% (814) will reach age 65 by 2013. Of the total number of marine engineers in Eastern Canada, 21% (543) will reach age 65 by 2013.

Province of Residence for Nautical and Engineering Certificate Holders

Transport Canada data indicates that the top five provinces of residence for nautical and engineering certificate holders are British Columbia, Newfoundland and Labrador, Quebec, Ontario and Nova Scotia, in that order.

Recommended Steps to Enhance Access to Marine Career Opportunities

Access to marine career opportunities must be enhanced to meet the future marine transportation and offshore oil and gas industries' needs in Eastern Canada. *Marine Career Opportunities in the Marine Transportation and Offshore Petroleum Industries in Eastern Canada* recommended a number of steps to enhance access to marine career opportunities:

i) Initiatives to encourage existing personnel to upgrade skills and promotion of training within the industry;

ii) Promotion of marine careers to increase awareness of career choices for youth, women, aboriginals and others;

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iii) Identification of initiatives to encourage industry and, where applicable, unions to increase participation in cadet programs, thereby creating more industry training opportunities for cadets and providing flexibility to increase intake in training programs that incorporate industry work placements;

iv) Increased focus on marine engineering careers;

v) Development of a strategic human resources plan for seafarers in Eastern Canada, in collaboration with Transport Canada and other sectoral committees, including those in Quebec and the Niagara region of Ontario. A strategic human resources plan for Eastern Canada should define the demand for deck and engineering officers (in broad terms), identify the issues which impact the labour supply and demand, and identify how these issues will be resolved (i.e, what action will be taken);

vi) Working with industry to find plausible solutions to gaining access to deep-sea experience;

vii) Providing professional development opportunities specific to the marine industry for human resource managers;

viii) Extending the analysis of Transport Canada marine certificate holders to include the rest of Canada;

ix) Developing a program, guided by the experience of the *IMO Women In Development Programme,* that focuses on areas such as gender awareness training, gender-specific fellowships, leave systems, and on-board accommodation and facilities. It may be necessary to conduct a study to identify and examine in detail why females are underrepresented in marine occupations, and what actions are necessary to increase their participation; and

x) Investigation of “best practices” in other marine jurisdictions.

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2.2.4 Study Findings: Public Perception Surveys

Background Information

The public perception surveys conducted for the Marine Careers Secretariat indicate that most high school students (85%) intend to continue their education through a post-secondary institution after completion of high school.

Factors indicated by high school students and educators as positive considerations in choosing a career were wages, job stability, and benefits. (This question was not posed to parents).

Both students and parents indicated that parents, followed by friends, have the greatest impact on influencing students' decisions to pursue a post-secondary education and/or career. Educators believed they had a moderate level of influence on their students' post-secondary and/or career decision-making.

Marine Industry

General

In terms of marine career awareness, high school students, educators and parents indicated greatest awareness of positions in catering (cook/steward). Students and educators also indicated awareness of administrative positions. Parents indicated some awareness of engineering officer positions, as well as deck hand and engineering assistant positions.

Many of the parents, and most of the educators, indicated that either they or someone they know has been employed in, or connected with, the marine industry. However, less than half of high school students indicated that either they or someone they know has been employed in, or connected with, the marine industry.

High school students with some knowledge of, and experience with, the marine industry were unsure about choosing a marine career, while parents and educators with some knowledge of, and experience with, the marine industry were more likely to respond positively to the prospect of a career in the marine industry for their children/students.

Overall, only a very small percentage of high school students indicated an interest in pursuing a career in the marine industry. The main reasons cited

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by high school students for not wishing to pursue a marine career were personal interest, aversion to working at sea, and limited knowledge of marine careers.

Parents and educators agreed that personal interest, availability of jobs, and salary expectations were important criteria in making a career choice. Most educators indicated that they would not be reluctant to recommend marine careers to their students. The main reason cited by educators for not recommending marine careers more proactively was lack of career information.

Perceptions

According to all groups surveyed, the three common considerations regarding positive perceptions of the marine industry were “high salaries and benefits,” “good opportunities for promotion,” and “variety and excitement.” Parents and educators also indicated that “marine careers offer full-time year-round work,” “marine careers require overtime work,” “marine careers are physically demanding,” and “there are opportunities for professional certification” are factors that reflect positively on marine industries.

Strongest disagreement from parents and educators was with the survey statement that “little education and training is needed” in the marine industry, indicating a significant level of awareness of the professional nature of marine careers.

Gender Issues

There was a perception among all groups surveyed that women are capable of performing the same tasks and activities as men in marine careers. There was general disagreement with survey statements suggesting that women do not have the same opportunities and capabilities as men. All survey groups agreed with the survey statement that “women can work anywhere in the marine industry”. Furthermore, high school students and parents agreed that “there are equal opportunities for men and women in the marine industry.” However, significantly fewer females than males expressed interest in marine careers.

Marine Careers

Knowledge of both shore-based careers and at-sea marine careers was somewhat low by all groups surveyed, indicating an evident need to promote marine career opportunities.

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Education and Training Requirements

All groups surveyed believed that teamwork was the primary educational and training requirement needed for working in the marine industry. Parents and educators indicated communication skills as another key requirement, while high school students rated navigational skills highly.

Most respondents believed that the minimum level of education required to enter into a marine career is graduation from high school and that the best place to obtain the skills required for a marine career was the Marine Institute. All groups believed it is *not* necessary to leave Newfoundland and Labrador in order to obtain training for a marine career.

Financial Incentives/Inducements

Educators and parents believed that salaries were higher in the marine sector than average salaries in other sectors of the Newfoundland and Labrador economy. Most high school students, on the other hand, indicated they didn't know or were unsure about salary comparisons.

Knowledge of Marine Institute

Educators and parents were aware of some of the programs at the Marine Institute, particularly the diploma of technology and the short-term certificates. Most high school students, however, were unaware of the programs available at the Marine Institute.

Memorial University of Newfoundland was perceived as the most reputable institution in the province, followed by the Marine Institute. Overall, the perception of the Marine Institute was positive; however, the surveyed groups were largely uninformed regarding the opportunities afforded by the marine sector and the specific training programs available to prepare for them.

3. Marine HR Supply

3.1 Marine Institute Graduates

Graduation rates from marine-related post-secondary programs offer a good indication of the available supply, particularly for professional positions in marine operations and design. In the province of Newfoundland and Labrador, the only post-secondary educational institution offering programs directly related to these professions is the Fisheries and Marine Institute of Memorial University (Marine Institute).

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Table 2 presents the Marine Institute's graduation rates from Diploma of Technology programs in marine operations (Nautical Science and Marine Engineering) and marine design (Naval Architecture and Marine Engineering Systems Design) for the six year period 2000 – 2005.

Table 2
Marine Institute Graduation Rates (2000 – 2005), Diploma of Technology Programs: Marine Operations & Marine Design

Program/Year	2000	2001	2002	2003	2004	2005
Nautical Science Diploma	26	23	32	40	42	30
Marine Eng Diploma	12	20	13	19	22	24
Naval Arch Diploma	8	17	19	9	12	13
Mar Eng Systems Design Diploma	8	8	9	17	6	5

Since the Marine Institute is Canada's largest and, in some cases only, supplier of these technology graduates, it is clearly evident that the demand for personnel, in the ships' officer occupations especially, is not being met.

Despite the fact that the projected demand for marine engineering officers is significantly greater than the demand for deck officers, graduates of the Nautical Science Diploma program outnumbered the graduates of the Marine Engineering Diploma program almost two to one during this period, continuing a trend that extends back much farther. These figures demonstrate once again the need for a major initiative aimed at promoting marine engineering career opportunities and enhancing the image of marine engineering as a career choice.

3.2 Future Supply

In Newfoundland and Labrador, the province with the greatest number of seafarers in Eastern Canada, Grade 12 enrolment declined by 13% during the period 2001/02 – 2006/07. The projected decline for the period 2006/07 – 2010/11 is a further 18%, for a total projected decline of 32% for the ten year period 2001/02 – 2010/11.

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The decline may or may not be as dramatic in other Eastern Canadian provinces, but the high school population is clearly in decline throughout the region. With the overall resource pool shrinking dramatically, the marine sector, already projecting significant personnel shortages, will be extremely hard hit without a strong career promotion initiative. The problem may be further aggravated by strong, well-funded recruitment efforts by competing sectors, such as the skilled trades promotion strategy.

4. Marine Careers Marketing and Communication Strategy

On the basis of the findings of the Marine Career Opportunities Study and the Public Perception Surveys, the Marine Careers Secretariat commissioned the Bristol Group to develop a plan for a Marine Careers Marketing and Communication Strategy. The plan, submitted in June, 2005, proposed a three-year strategy that would include an industry symposium; media relations; an industry print campaign; television advertising; media and government relations; web, internet, and cinema advertising; school information; educational institution partnerships; and measurement. The three-phase strategy would cost $750,000 over a three-year period (Section 5: Implementation of the Marketing and Communication Strategy developed by the Bristol Group is included as *Appendix B: Implementation Plan for Marketing and Communication Strategy*).

The Marine Careers Secretariat presented the *Marketing and Communication Strategy* plan to senior personnel at the Marine Institute and to key industry stakeholders through focus group meetings.

Industry stakeholders concluded that the proposed strategy was too narrow in scope, focused too heavily on a media campaign designed primarily to enhance the image of the industry, would not adequately address critical systemic issues, did not provide effective mechanisms for evaluating success, and was too costly for the anticipated benefits. They indicated that an effective strategy for promoting marine careers should be developed through more active input from industry.

The Marine Careers Secretariat scheduled a *Marine Careers Symposium* for May, 2006 in order to obtain direct and focused input from key stakeholders (industry, education and training institutions, and relevant federal and provincial government departments and agencies) that would drive the development of an effective promotion strategy to address the key human resource issues identified by its pair of studies and other relevant reports.

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5. Marine Careers Symposium (May 26, 2006)

Purpose

The research undertaken by the Marine Careers Secretariat identified the extent of marine career opportunities available to residents of Eastern Canada, and various factors affecting regional, national, and international demand. It also identified the perceptions and levels of awareness of marine industries, marine careers, and marine training exhibited by students, parents, and educators in one Eastern Canadian province, Newfoundland and Labrador.

From the research findings, the Marine Careers Secretariat was able to extrapolate and highlight some of the key human resource issues facing the marine transportation industry in Eastern Canada. These key issues, relating essentially to supply and public perceptions, formed the basis for discussion at the *Marine Careers Symposium*.

5.2 Format

The *Marine Careers Symposium* ran from 9:00 AM to 12:45 on May 26, 2006, and was followed by a luncheon which provided a less structured opportunity for participants to network, exchange views, and provide input to the Marine Careers Secretariat. (See *Appendix C: Marine Careers Symposium Agenda.)*

Following welcome and introductions (See *Appendix D: Symposium Participant List)*, a presentation by Marine Careers Secretariat Chair, John Connors, outlined the origin and role of the Secretariat, highlighted the key findings of the Marine Career Opportunities Study and the Public Perception Surveys, and identified the key human resource issues that would provide the framework for symposium discussion.

This was followed by an interactive discussion involving a panel of three and the symposium participants. The panel was structured to ensure discussion would represent the perspectives of key stakeholders in marine human resource development: industry, postsecondary education and training, and government (with specific reference to gender equity). Industry was represented by Capt. Rick Strong, Marine Services Manager, Seabase Limited; postsecondary education and training was represented by Glenn Blackwood, Executive Director of the Marine Institute of Memorial University; and government was represented by Heather MacLellan, Assistant Deputy Minister, Women’s Policy Office, Government of Newfoundland and Labrador.

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Using the key human resource issues identified in the Marine Careers Secretariat presentation, panelists and participants proposed and debated a number of potential initiatives to address each of the key issues.

5.3 Context

As a focus for discussion, the panel and symposium participants were asked to consider, identify, and propose go-forward strategies that would respond to the following questions:

- What do we want the marine human resource situation to look like in 10 years time?

- What specific initiatives (research, legislative, marketing, funding) will be needed to achieve this?

5.4 Key Issue Identification

Within this general context, the panelists and participants were asked to respond specifically to four key issues arising from the research studies and stakeholder input. Approximately equal time was allocated to each issue, and Derrick Barrett, a member of the Work Group of the Marine Careers Secretariat, documented suggestions and proposals to be consolidated and presented in greater detail in a follow-up report by the Marine Careers Secretariat.

The four key issues identified for discussion, together with focus questions, were:

Industry HR Shortages/Challenges

What specific initiatives can be developed to:

- expedite the development of replacements for the aging marine workforce in Eastern Canada?
- address critical shortages/difficult to recruit positions
- address identified bottlenecks (e.g., 4th class engineers)
- enable Eastern Canadians to take advantage of the opportunities provided by the growing worldwide shortage of mariners?

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Future Supply: Today's Students

What specific initiatives can be developed to:

- reach students more effectively with information that will enhance their awareness and career decision-making?
- make primary influencers (parents, siblings, friends) more aware and more knowledgeable?
- enable schools to be more effective influencers?

Gender Issues

What specific initiatives can be developed to:

- make women more aware of marine career opportunities?
- attract women into marine careers?
- Increase female enrolment in marine related education and training programs?

Education and Training

What specific initiatives can be developed to:

- increase enrolment in programs related to marine careers?
- enhance access to pre-employment marine programs?
- enhance access to continuing education?
- ensure the continuing relevance of programs related to marine careers?

5.5 Symposium Follow-Up Process

Following the panel/participant interaction, Marine Careers Secretariat Chair, John Connors, outlined the process that would be used in developing a marine careers promotion strategy based on input from the symposium.

The Marine Careers Secretariat would consolidate suggestions, proposals, and initiatives into a draft strategy and action plan to be presented to participants and other stakeholders for review and further input. A final report based on this follow-up review and input would form the basis for an implementation funding proposal.

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6. Marine Stakeholder Consultation (February 16, 2007)

Following the May 2006 Marine Careers Symposium, the Marine Careers Secretariat developed a draft *Marine Careers Promotion Strategy* and *Short-Term Action Plan*. The promotion strategy and action plan were then presented to marine stakeholders for review and input at a *Marine Stakeholder Consultation*, held at the Battery Hotel in St John's, NL, on February 16, 2007. (See *Appendix E: Marine Stakeholder Consultation Agenda.*)

Participants in the *Marine Stakeholder Consultation* (See *Appendix F: Marine Stakeholder Participant List*) reviewed the strategic initiatives of the *Marine Careers Promotion Strategy* and the *Short-Term Action Plan* item by item and provided input and commentary. Following this review, participants in the *Marine Stakeholder Consultation* unanimously supported a motion to endorse the *Marine Careers Promotion Strategy* and the *Short-Term Action Plan* as presented in Volume 2 (*Ranges and Bearings: Setting a Course*) of this report and recommend its acceptance by the Steering Committee of the Marine Careers Secretariat.

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In the Same Boat

A Collaboratively Developed Marine Careers Promotion Strategy for Eastern Canada

Volume 2 *Ranges and Bearings: Setting a Course*

1. Delineating a Marine Careers Promotion Strategy

Critical workforce shortages are not unique to the marine sector. Other sectors have encountered similar shortages and responded with major promotional initiatives. Ironically, some of the initiatives of other sectors may aggravate the workforce shortage in the marine industries by attracting potential marine career entrants to other sectors.

All key stakeholders (industry, education and training institutions, and governments) can derive benefit from an effective and feasible marine careers strategy. The development of such a strategy has required ongoing input, support, and funding from all key stakeholders. So, too, will its implementation.

Until now, marine stakeholders have not uniformly shown an awareness of the magnitude of the workforce shortage it faces, nor demonstrated a keen interest in responding to it in any significant way.

The May 2006 *Marine Careers Symposium* was a critical turning point that featured marine stakeholders collectively addressing the human resource issues confronting the marine sector and identifying a broad range of potential responses.

The strategic initiatives outlined in *In the Same Boat: A Collaboratively Developed Marine Careers Promotion Strategy for Eastern Canada* constitute the consolidation of the suggestions, proposals, and initiatives arising from the *Marine Careers Symposium* (including follow-up consultation and communication), together with initiatives arising from the findings and recommendations of the studies commissioned by the Marine Careers Secretariat.

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1.1 Human Resource Shortages/Challenges

Context

Reports and regular five-year workforce updates, conducted by organizations such as the Baltic and International Marine Council (BIMCO) and the International Shipping Federation (ISF), make it clear that the recruitment of adequate numbers of seafaring personnel will become an increasingly difficult challenge for OECD countries in the coming years.

“The last two decades have seen a sharp decline in the supply of well-trained seafarers, especially officers”, reports the Commission of the European Communities, citing a marine workforce study that revealed for the year 2000 a “world-wide shortage of officers corresponding to 4% of the total workforce (16,000 officers) and predicted a 12% shortfall (46,000 officers) by the year 2010” (EU Commission, 2001, p.3).

Quality of life issues, including time away from home and shipboard lifestyle issues have been identified as recruitment deterrents. Some studies indicate that young people place a higher premium on leisure time than previous generations did. Adding to these factors is the difficulty of developing planned career paths, a situation characterized by vagueness regarding entry points and a lack of clear career path information.

The *Marine Career Opportunities in the Marine Transportation and Offshore Petroleum Industries in Eastern Canada* (2004) study commissioned by the Marine Careers Secretariat researched worldwide marine workforce needs and documented the marine workforce demand, supply, and challenges specific to the Eastern Canadian marine sector. Likewise, the *Public Perception Survey: Career Opportunities in the Marine Industry in Newfoundland and Labrador* study, conducted the same year, confirms the very low level of interest in marine careers locally.

The declining interest, in Canada and worldwide, in seafaring as a career can represent an excellent opportunity for regions such as Eastern Canada that have a strong maritime heritage if an appropriate strategy to respond to identified challenges can be implemented.

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Strategic Objectives:

1. Enhance the image of the marine transportation industry.

    1.1 Plan and implement a marine symposium to highlight the contributions of the marine transportation industry to the region's safety, environment, economy, and recreation.

    1.2 Develop a strategy for more effective communication of "good news" and human interest stories relating to the marine industry.

    1.3 Develop a comprehensive advertising campaign focusing on the benefits of a marine career and counteracting popular misconceptions ("Why a Marine Career" video, ads, promotional materials, etc).

    1.4 Develop mechanisms to highlight and celebrate pride in the contributions of career mariners.

    1.5 Undertake research to determine mechanisms to combat the "isolation" image of life on board ship.

2. Improve the quality, content, and dissemination of marketing and communication materials.

    2.1 Develop, with appropriate input from industry and Transport Canada, clearly defined career ladders ("A Marine Careers Guide") that will provide professional quality information on marine positions, working conditions, compensation, certification requirements, etc.

    2.2 Develop a profile of desirable characteristics in specific marine careers and construct recruitment materials based on these profiles.

    2.3 Develop a marine careers website and maximize its effectiveness by making it interactive and user-friendly, and incorporating features such as links to marine companies; virtual tours of vessels, worksites and training facilities, highlighting attractive facilities and amenities; sector specific labour market information; and employment opportunity postings.

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2.4 Identify or create, and support, a driving force (e.g., an industry association) that can draw on and channel the resources of industry, governments, education and training centres, and the media to break stereotypes and rejuvenate the industry image.

2.5 Utilize organizations such as the Rural Secretariats, Regional Economic Development Boards, and other regional economic development stakeholders, to enhance dissemination of marine career information.

2.5.1 Provide such organizations with labour market information re marine career opportunities, salaries, benefits, working conditions, etc.

2.5.2 Make such organizations aware of the community sustainability impact of marine careers (e.g., work elsewhere but live in, and contribute to the development of, local communities; out-migration implications).

2.6 Lobby for, and contribute to, the establishment of a National Marine Sector Council.

3. Expand marine recruitment initiatives.

3.1 Develop, in collaboration with Transport Canada, industry, and other sectoral committees, a strategic human resources plan for marine industries in Eastern Canada.

3.1.1 Develop clearly defined occupational profiles.

3.1.2 Specify identified needs and opportunities.

3.1.2 Conduct a survey to identify the most promising recruitment areas and sources.

3.2 Develop and implement specific workforce recruitment measures that respond to identified critical needs and barriers.

3.2.1 Intensify focus on marine engineering recruitment.

3.3 Take advantage of overcapacity in related sectors such as the fisheries.

3.3.1 Identify current fisherpersons too young to take advantage of retirement incentives, and create bridges into marine

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