# **Evaluation in Support of the Canadian Coast Guard's Seafarers Establishment**





**Evaluation Report** 

March 2018



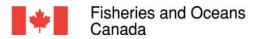


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### **Purpose of the Evaluation**

The purpose of the evaluation was to support the Canadian Coast Guard's Seafarers Establishment Project and to explore issues related to career development for operational personnel.

#### **Overview**

This report presents the results of the Evaluation in Support of the Canadian Coast Guard's (CCG's) Seafarers Establishment.

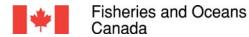
The evaluation was conducted in accordance with the Treasury Board's *Policy on Results (2016)*, which requires departments to measure and evaluate performance and use the resulting information to manage and improve programs, policies and services.

The evaluation was undertaken by Fisheries and Oceans Canada's (DFO's) Evaluation Directorate between June 2017 and January 2018, as per DFO's 2016–2017 Departmental Evaluation Plan.



The results of the evaluation will provide baseline information to support the CCG in developing a methodology to determine the number of personnel needed to support the operation of CCG programs.





### **Profile of Seafarers Establishment**

### The Canadian Coast Guard's Seafarers Establishment Project

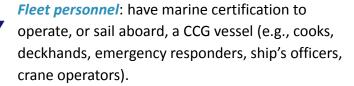
The effective and efficient delivery of the CCG's programs and the operation and maintenance of vessels and maritime assets are dependent upon the existence of an appropriate number of skilled and experienced *seafaring* personnel.

The *purpose* of the CCG's Seafarers Establishment Project is to determine the number of personnel that are required to operate effectively and sustainably, which takes into account operational requirements, training needs, and collective agreement entitlements.

This is a complex, innovative project, as no such exercise has previously been completed. In addition, it includes personnel across *all CCG programs* who are in both *fleet and shore-based positions*.

"Seafarers" is traditionally defined as "mariners". As the Seafarers Establishment Project includes both those afloat and ashore, the evaluation used the broader terms "operational personnel" or "operational workforce" to refer to the population that was considered within the scope of the evaluation.





Shore-based personnel: deliver essential shoreside functions and where marine certification, marine experience, or specialized marine knowledge are a necessity [e.g., Regional Operations Centres (ROCs), vessel procurement, navigational systems].







### **Evaluation Approach and Scope**

**Design and Questions** 

The approach and scope for the evaluation were established during a planning phase, which included consultation with CCG representatives across all regions.

### **Evaluation Design**



The evaluation was designed as a developmental evaluation to gather information to support decision-making during the implementation of the Seafarers Establishment Project. Two key information needs were identified by senior management:

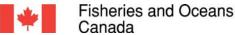
- Gather information on the CCG's operational workforce (e.g., number of positions, certification requirements, relief factor); and
- Further explore findings from previous evaluations that identified issues related to career development for CCG personnel.

The focus of the evaluation was to establish a baseline for the operational workforce for fiscal year 2016–2017.

### **Evaluation Questions**

- 1.1 What is the current composition of the workforce that directly supports the delivery of CCG programs (i.e., operational personnel both afloat and ashore)?
- 1.2 What ashore operational positions require valid marine certification, marine experience, or specialized knowledge of the marine industry?
- 1.3 Historically, how has the CCG calculated the number of personnel needed to operate the fleet (i.e., the crewing factor or relief factor), by region and type of position? What theories and practices exist for calculating the relief factor for organizations with 24/7 operations?
- 2.1 To what extent do CCG operational personnel have support for career development?
- 2.2 To what extent does the career development support offered by the CCG meet the needs of CCG operational personnel? What additional support is needed?





### **Evaluation Approach and Scope**

**Gender-based Analysis Plus** 

As per the Treasury Board Directive on Results (2016), the evaluation aimed to include a gender-based analysis and incorporated indicators into the evaluation questions, where relevant.

### What is Gender-based Analysis Plus?



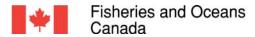
Gender-based analysis plus (GBA+) is an analytical tool, process, or product used to assess the potential impacts of policies, programs, services, and other initiatives on diverse groups of women and men, taking into account gender and other identity factors. The "plus" in the name highlights that gender-based analysis goes beyond gender, and includes the examination of a range of other intersecting identity factors (such as age, education, language, geography, culture, and income).

# How did the Evaluation aim to Conduct a Gender-based Analysis Plus?

- Examine how other jurisdictions consider aspects of gender and diversity when establishing relief factors.
- Examine barriers with respect to career development and whether barriers differed by identity factors.
- Collect information regarding best practices for recruiting and retaining employees from diverse backgrounds.

It was not possible to examine barriers with respect to career development in relation to different identity factors because the data from the survey of operational personnel did not allow for this analysis.





### **Evaluation Approach and Scope**

**Definition of Operational Personnel For Evaluation Scope** 

The scope of the evaluation included operational personnel who are in positions that <u>directly</u> support the delivery of CCG programs.<sup>1</sup> These positions would typically require marine certification, specialized experience in the marine industry, or specialized marine knowledge.



#### **FLEET POSITIONS**

# Works aboard a CCG vessel

Small craft, small and large vessels, air cushion vehicles



#### **SHORE-BASED POSITIONS**

# Supports the day-to-day operation of CCG vessels

Ship activity planning or scheduling, ship provisioning, crewing activities, safety and security

# Plans, manages, or delivers CCG programs<sup>2</sup>

Environmental Response, Aids to Navigation, Icebreaking, Waterways Management, Search and Rescue, Marine Communications and Traffic Services, Maritime Security

The scope of the evaluation did not include positions that <u>indirectly</u> support the delivery of CCG programs.

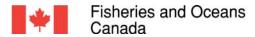
Vessel procurement<sup>3</sup>; training and development<sup>3</sup>; planning, budgeting, and human resource management; administrative support; information technology and information management.

<sup>&</sup>lt;sup>3</sup> Exceptions are marine engineers and technical inspectors in vessel procurement; and instructors at the CCG College (SO-INS and RO only). These positions are considered operational.



<sup>&</sup>lt;sup>1</sup> This definition currently excludes any personnel that are within Integrated Technical Services as this Branch has not yet finalized the information.

<sup>&</sup>lt;sup>2</sup> This does not include programs outside of the CCG organization (e.g., Science and Ecosystems and Fisheries Management)



### **Evaluation Methodology**

The evaluation used multiple lines of evidence, both qualitative and quantitative, to ensure triangulation of findings.

#### **Interviews**

Seventeen interviews were held with 24 representatives of the CCG across all regions, including the CCG College, to gather information on the CCG's crewing factor and to understand what career development support is available to personnel.<sup>4</sup>



#### **Career Profiles**

Eleven representatives from the CCG were interviewed to gain an in-depth understanding of their career paths, including barriers to progression and what improvements were needed to career development support within the CCG.



#### **Document Review**

The document review included program documentation related to the CCG crewing factor, training and development, and previous evaluations and audits.



### **Site Visit**

A two-day site visit to the CCG College in Sydney, Nova Scotia, was organized to tour the facilities, conduct interviews with College administrators, and to conduct a focus group with fourth-year cadets.



### **Alternative Practices Research**

A study of alternative practices was conducted to identify theories and practices related to calculations of relief factors in organizations with 24/7 operations; and to explore practices related to training and career development in other organizations with similar operations and/or mandate.





### **Evaluation Methodology**

### **Career Development Survey**

An online survey was administered to operational personnel (fleet and ashore) to gather information on career development support received and improvements needed. A total of 451 responses were received (234 from shore-based personnel and 217 from fleet personnel).<sup>4</sup>



#### Limitations



Due to the challenges reaching fleet personnel, it is possible that not all had knowledge of the survey or had an opportunity to respond to it. In addition, due to the number and distribution of responses received, the results from the survey cannot be considered representative of all operational personnel. Qualitative information from the open-ended questions has been used to support the interpretation of quantitative responses, where needed.

### **Analysis Of Administrative Data**

The evaluation used administrative data from CCG organizational charts, PeopleSoft, and MariTime to develop a profile of operational positions. Data on overtime were obtained from DFO financial databases.



### **Limitations**

- MariTime contains data only for fleet positions. Thus to ensure consistency, the demographic information for all operational personnel was obtained from PeopleSoft. There are some inaccuracies in the PeopleSoft data (e.g., data are not up-to-date or are missing or duplicated); however, this did not have a significant impact on demographic profile of operational personnel.
- Information on requirements for marine certification, experience, and knowledge (Section 1.2) is based on input from program areas across the different regions, and thus the information may be subject to interpretation.
- Overtime calculations were based on <u>actual</u> overtime expenditures and <u>estimated</u> salary expenditures because accurate actual salary figures were not available. Although this approach was found reliable for developing the finding presented in Section 3.0, it limited the ability to conduct a detailed analysis of overtime.

<sup>&</sup>lt;sup>4</sup> The survey and interviews included personnel from Integrated Technical Services; therefore, this Branch is represented in the findings and recommendations related to career development (Section 2.1 and 2.2) and sustainability of the workforce (Section 3.0).

**Context for Findings** 

In the past five years, a few events have had an affect on the CCG operational workforce.

### **Budget Reductions as a Result of Strategic Review**

In 2012–2013, as a result of strategic review, Fisheries and Oceans Canada was subject to a budget reduction of \$79.3 million. This had impacts for the CCG:



- the closure of some Marine Communications and Traffic Services (MCTS) centers;
- a shift from a five-region model to a threeregion model;
- there were changes to the way in which certain administrative functions were delivered both at headquarters and in regions; and
- there was a reduction of personnel.

### **New Federal Pay System**

In April 2016, the federal government launched a new pay system. CCG personnel have been significantly affected by pay issues since that time.

### **Lack of Connectivity**

CCG vessels have limited internet connectivity and most fleet personnel do not have departmental email addresses. This limits their ability to access electronic systems and receive communication while at sea and ashore.

These underlying issues may have influenced the findings from the evaluation.



# **Evaluation Findings**

### 1.1 Composition of the Operational Workforce

**Finding**: The CCG does not have a consistent definition to determine which positions within the organization are considered operational. Based on the definition that was developed as part of the evaluation, the majority of CCG personnel are considered operational.

Based on 2016–2017 data, the CCG has approximately 4,000 positions in total.<sup>5</sup>

Approximately 2,500 are fleet positions.

Approximately 1,500 are shore-based positions.

In terms of *operational positions*, all fleet positions are considered operational and about two-thirds of shore-based positions are considered operational, for a total of about *3,400 operational positions*.









Within fleet, 58% of positions are ship's crew (SC) and 42% are ship's officers (SO). A small proportion of positions (< 1%) are machinery maintaining (GL) and general technical (GT) positions.

58%	42%
SC	SO

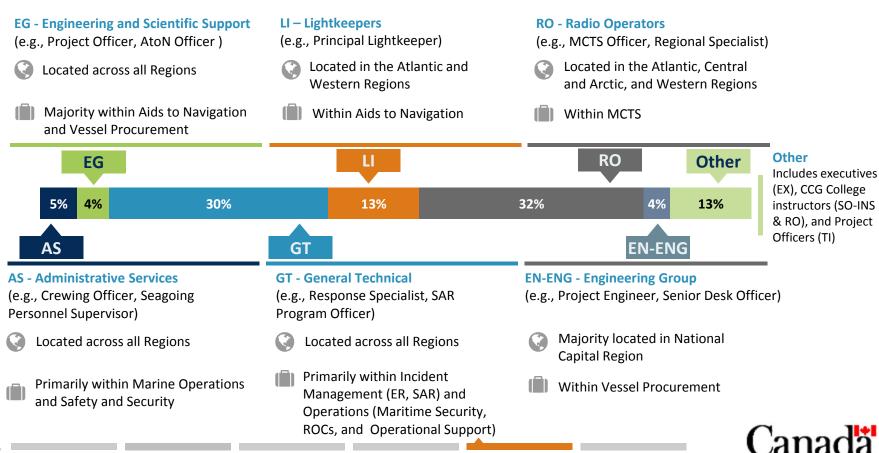
<sup>&</sup>lt;sup>5</sup> The number of ashore operational positions is from CCG organizational charts (April 2017). The number of fleet positions is from CCG's Master Crew Profile (June 2017). This is the number of <u>positions</u>, not the number of <u>actual</u> personnel. Theses numbers exclude all positions within Integrated Technical Services, as well as positions staffed as a result of funding from the most recent Comprehensive Review and the Oceans Protection Plan.

# **Evaluation Findings**

### 1.1 Composition of the Operational Workforce (Continued)

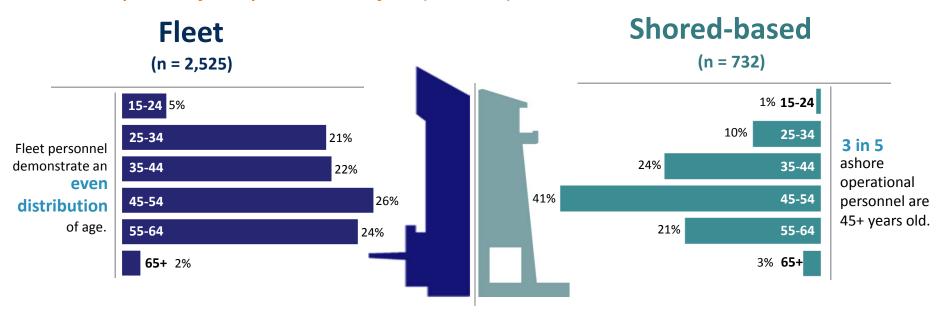


For shore-based operational positions, the largest proportion of positions are within the radio operator (RO) and general technical (GT) classifications (62%). While positions within the administrative services (AS) and clerical and registry (CR) classifications are generally not considered operational, some AS and CR positions were identified as requiring some type of marine nautical expertise.



# **Evaluation Findings**

1.1 Composition of the Operational Workforce (Continued)





**12%** of fleet personnel are women.



As other socio-demographic information is provided on a voluntary basis, there is limited information available for this population. In both the administrative and survey datasets, very few people self-identified as Aboriginal, a member of a visible minority, or as having a disability.

30% of ashore operational personnel are women.



<sup>&</sup>lt;sup>6</sup> The socio-demographic data were compiled using PeopleSoft data (as of July 2017). 218 shore-based positions did not have associated data in PeopleSoft. This could be related to vacant positions or personnel not yet being in PeopleSoft.





# **Evaluation Findings**

### 1.1 Composition of the Operational Workforce (Continued)

How long did survey respondents spend in fleet and shore-based positions?

of survey respondents currently in fleet positions have worked in shore-based positions.



Those people spent a total average of **4 years** in shore-based positions.



of survey respondents currently in shore-(n=234) based positions have worked in fleet positions.



Those people spent a total average of **11 years** in fleet positions.

What were survey respondents doing prior to joining the CCG? (n=451)



**34%** were working in a non-marine related job.



**21%** were attending a post secondary institution.

**30%** were working in a marine-related job.



**50%** first learned of the CCG through a family member or friend.

How did survey respondents learn about the CCG? (n=451)



**12%** first learned of the CCG through social media or the CCG website.



**10%** first learned of the CCG through their school (e.g., guidance counsellor, recruitment poster, co-op placement).





### 1.2 Certification, Experience, and Knowledge Requirements for Ashore Operational Positions



**Finding**: The requirements for marine certification, marine experience, and specialized knowledge of the marine industry for ashore operational positions are not well-articulated. Based on the input from the program areas, many of the ashore operational positions have certification, experience, and knowledge requirements.

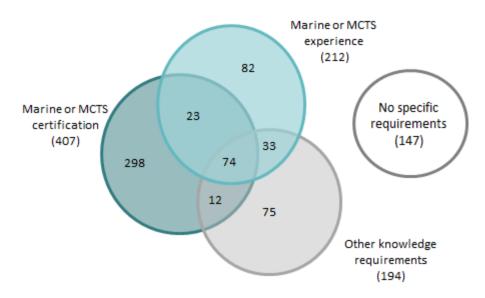
**Current requirements** for marine certification, experience, or knowledge for ashore operational positions are not articulated in any program documentation or administrative data.



With input from program areas, requirements were identified for **78%** of ashore operational positions.<sup>7</sup> Some positions have a combination of certification, experience, and knowledge requirements.

Information on requirements can inform decisions with respect to the workforce (e.g., staffing, training needs, rotational opportunities).

Summary of Certification, Experience, and Knowledge Requirements for Ashore Operational Positions (n=744)



Source: Compiled based on input from program areas.

<sup>&</sup>lt;sup>7</sup> This information was not obtained for operational positions within Incident Management or Maritime Security.



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1.2 Certification, Experience, and Knowledge Requirements for Ashore Operational Positions (Continued)

The requirements for certification, experience, or knowledge vary by type of position.



**MARINE OR MCTS EXPERIENCE** 

**OTHER KNOWLEDGE REQUIREMENTS** 

**NO SPECIFIC REQUIREMENTS** 

Includes personnel in:

- MCTS
- Marine Operations
- Regional Operational Centres
- CCG College
- Senior management at **National Headquarters** and Regions

Identified as either mandatory or asset Includes personnel in:

- **Navigation Programs**
- Operations (GT classification groups)
- Vessel Procurement (ENG and FG classification groups)

Identified as either mandatory or asset Includes personnel in different program areas across the country and includes knowledge such as:

- · Project management and finances
- Ship knowledge
- Audit and investigation
- Medical certification
- Arctic knowledge
- Engineering/technical expertise
- Communication/relationship analysis

Includes personnel primarily in:

 Navigation Programs (in the LI classification group)



Source: Compiled based on input from program areas.







1.2 Certification, Experience, and Knowledge Requirements for Ashore Operational Positions (Continued)

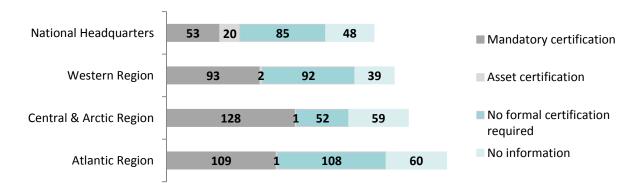


Most mandatory requirements for *marine certification* are in the regions. The Central and Arctic Region has the highest number of positions with these requirements.

Most requirements for *marine experience* are in National Headquarters.

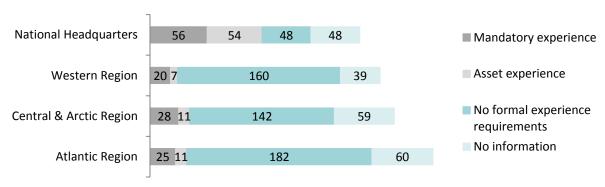


### Regional Breakdown of Marine Certification Requirements (n=950)



Source: Compiled based on input from program areas.

### Regional Breakdown of Marine Experience Requirements (n=950)



Source: Compiled based on input from program areas.





### 1.3 Crewing / Relief Factor



**Finding**: The optimal staffing levels for the CCG's seagoing personnel are based on a crewing factor. This factor has been adjusted slightly over time; however, it currently does not reflect all of the elements that are considered to be important when establishing crewing factors. In addition, most shore-based programs do not have a relief factor.

Ship's Officer – LAYDAY (Leave)			
Type of Leave	1993–1994		
Annual leave (AL)	26.9		
On-Cycle AL	8.6		
Sick Leave	4.1		
Compensatory time	1.8		
Training (T)	5		
On-Cycle T	0.9		
Stat/Lieu Day	0		
Other	1		
Total Leave	16.4		



A CCG analysis conducted in 1995

calculated crewing factors for fleet based on 1993–1994 actual leave data for paid leave. The analysis included five types of leave: sick, training, compensatory, statutory holiday, and "other". Values varied by personnel type (i.e., ship's officer, ship's crew). For example

MCTS is the only shore-based program that has a relief factor.

*Today's* crewing factors have been adjusted slightly since 1995.

Notably, values now vary by vessel size under the layday system.

Ship's Officer – LAYDAY (Crewing Factor)				
	1995			
Days/Year (A)	365			
Off-Duty Days	182.5			
On-Duty Days	182.5			
Total Leave (1993–1994)	16.4			
Days Available for Work (B)	166.1			
Crewing Factor (A/B)	2.20			

Crewing System	Personnel Type	Crewing Factor (1995)	Vessel Size	Crewing Factor (2017)
Lauday	Ship's Officer	2.2	Small	2.4
Layday	Ship's Crew	2.24	Large	2.5
Conventional	Any	1.35	Any	1.4

Current crewing factors do not include all factors that are considered to be important (e.g., training and development needs, changing gender roles, an aging workforce, changes to leave provisions).

Source: Information on crewing factors was obtained from "Review of CCG Vessel Crewing Practices and Procedures" (Transport Canada, 1995) and CCG Master Crew Profiles.



1.3 Crewing / Relief Factor (Continued)

Alternative practices research shows that there is no "one-size-fits-all" way to calculate crewing factors. Establishing a crewing factor that is feasible and sustainable is a *complex undertaking*, which must consider a number of supply and demand components that may vary significantly by position and operational unit.

Crewing factor calculations need to be based on specific and reliable data and must be reviewed periodically to assess and update the factors that are accounted for in productive time and workload calculations.

#### **PRODUCTIVE TIME**

Availability of an individual employee to take workload (measured in time units)

- Labour laws, policies, regulations and union agreements
- Statutory holidays
- Leave (e.g., vacation, sick, injury, personal, family care, paternal/ maternal/ adoption, bereavement, volunteer, jury duty)
- Training (e.g., service-wide training and professional development, on-the-job training, mentoring and coaching)
- Fatigue, transition, and delay time
- Attrition and deployment, staffing time

#### WORKLOAD

Work that must be done (measured in time units)

- Operational needs, directives, and specifics\*
- Budget\*
- Training, expertise, and certification requirements\*
- Risks (e.g., fatigue and stress levels)
- Own-unit support
- Special work assignments (e.g., committees, working groups, team building, projects)
- \* Suggested minimum factors to be considered



### 2.1-2.2 Career Development Support for Operational Personnel: Meeting of Needs and Barriers



**Finding**: CCG operational personnel have a high level of need for career development support. However, those needs are not being met because limited support is available. This has resulted gaps with respect to knowledge of career options, challenges getting support, and reliance on external sources in support. Operational personnel signalled a strong need for additional career development support.



Overall, operational personnel have a *high level of need* for career development support.

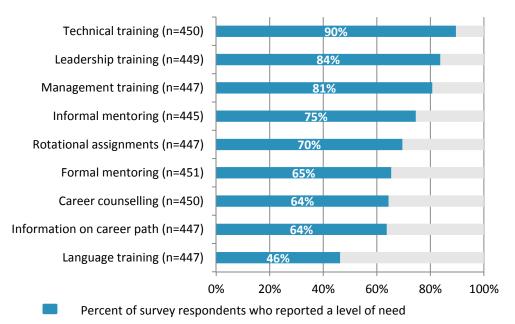
Survey data show that the *highest reported needs* are for:

- technical training;
- leadership training; and
- management training.

The are *no formal tools or processes* in place to support the career development of CCG operational personnel.

A few regional career development initiatives that have been developed (e.g., Western Region MCTS career paths); however none have been formally adopted at the national level, and the extent of their use is unknown.

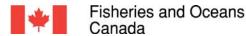
# Extent to Which Survey Respondents Need Various Types of Career Development Support



Source: CCG Career Development Survey





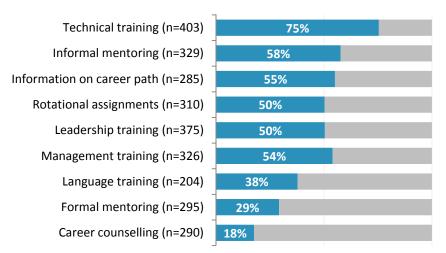


2.1-2.2 Career Development Support for Operational Personnel: Meeting of Needs and Barriers (Continued)

Just over 60% of survey respondents provided comments that indicated that the career development support received since joining the CCG has been insufficient.

In addition, survey respondents reported *gaps in support*, even when factoring in support received from non-CCG sources.

Extent to Which Support Received Addressed Respondents' Needs, from CCG and non-CCG Sources



Percent of survey respondents whose need was addressed (of those who reported a need)

Source: CCG Career Development Survey



69% of survey respondents experienced barriers to achieving their career goals.

### **Biggest Reported Barriers:**



- availability of training courses;
- · lack of developmental assignments; and
- lack of information on career options.



One of the biggest barriers that CCG operational personnel face with respect to career development is a *lack of resources* (e.g., time, money, personnel to fill the positions for those on training).

Lack of connectivity aboard vessels was also identified as a barrier to career development, as it is difficult to obtain information on training and development and to access job postings.





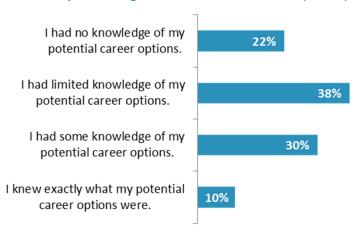
Fisheries and Oceans

### 2.1-2.2 Career Development Support for Operational Personnel: Knowledge of Career Options



60% of survey respondents had *limited* or no knowledge of their career options when they joined the CCG.

Survey Respondents' Knowledge of Career Options
Upon Joining the Canadian Coast Guard (n=451)



Source: CCG Career Development Survey

In the absence of career development support, the *lack of knowledge* about career options has *persisted throughout personnel's* careers.



- Personnel have limited knowledge of what they need to progress in their career within the CCG.
- Information about career options is not available.
- There is no defined career path for operational staff and no guidance for supervisors to counsel staff.
- Other than casual conversations there is little in the way of a formal career development process.
- Everything is left up to the employee to research and complete on their own.

Cadets do not have a good understanding of their career path options when they first start at the College. They have opportunities to learn as they progress through their years at the College (e.g., from instructors, during their sea phases).





### 2.1-2.2 Career Development Support for Operational Personnel: Use of External Sources for Support

Overall, 62% of survey respondents have *achieved* what they expected or more in their career; 38% have *not achieved* as much as they expected.

Survey Respondents' Achievement of Career Expectations (n=450)



Source: CCG Career Development Survey

While many personnel reported that they have achieved what they expected in their career with the CCG, the evaluation found that there is a *reliance on outside sources* to obtain the support needed.

Just over 37% of survey respondents reported that they received career development support from sources outside of the CCG, primarily from educational institutions.

Career development is often accomplished with their own *personal funds* and *during their time off.* 

The career development challenges experienced by the CCG are not unique, as few organizations included in the alternative practices had formal career development programs or have time for training explicitly accounted in the workload of their operational units.

Findings with respect to career development are similar to previous evaluations and an audit, which concluded that there is a lack of career development support in the CCG. For example:

The CCG College Evaluation (2016–2017) reported that **73%** of survey respondents *received additional certification or training* since graduation and **92% of that training was received from** *external sources*, most often from marine and nautical institutes because it was not available within the CCG.





3.0 Sustainability of the Operational Workforce



Finding: The evaluation identified a number of issues that may have an impact on the long-term sustainability of the CCG operational workforce, including current shortages in personnel, low morale, and planned departures.

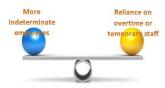
While exploring issues related to career development for the operational workforce, the evaluation identified other issues that raise questions on whether the operational workforce will be sustainable over the long-term.



There is a *shortage of personnel* to fill the current number of operational positions within the CCG.

- This affects level of career development support received (e.g., personnel cannot be released to attend training).
- Some ashore operational units are working high amounts of overtime (more than 25% of their salary).
- It can result in vessels sailing with exemptions.

An overtime budget of 12-15% may improve efficiency; however higher levels of overtime may increase risks and costs related to safety, fatigue, and human errors.



A 2015 report on the global supply and demand for seafarers indicated there will be a large shortage in the supply of officers— estimated to be 147,500 by 2025.

To address this shortage, organizations in other jurisdictions are conducting recruitment activities, which target underrepresented populations such as females, indigenous people, people from minority backgrounds, and lower income groups.

There is *no coordinated approach* for workforce management and training and development for operational personnel.



Responsibility for workforce management is split between two CCG branches.



The number of annual admissions to the CCG College is based on operational capacity, not on how many officers will be needed to sustain the fleet.



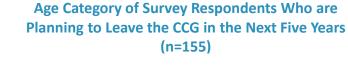


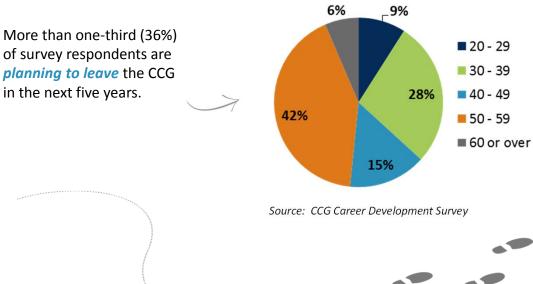
3.0 Sustainability of the Operational Workforce (Continued)

Survey respondents *raised many issues* with respect to the workplace...



...which raises questions on whether the CCG will remain an *employer of choice*.





Becoming an **employer** of **choice** means that people are eager to work for you, that people envy your employees, that you receive unsolicited resumes, and that your most talented workers stay with the company throughout their careers.



### **Conclusions and Recommendations**

#### 1. Defining the CCG Workforce

In support of the CCG's Seafarers Establishment Project, the evaluation aimed to develop a profile of the positions that are considered to be within the scope of the project. There was no common definition to describe this population, therefore, as a starting point for the evaluation, a definition was of "operational personnel" was developed. Based on this definition, the majority of CCG positions are considered operational.



**Recommendation**: The CCG should develop common definitions to describe the various populations within its workforce and clarify what population is within the scope of the Seafarers Establishment Project.

# 2. Certification, Experience, and Knowledge Requirements for CCG Operational Positions

Operational positions are those that typically require marine certification, marine experience, or specialized marine knowledge. These requirements are known for fleet positions, however, they are not currently well-articulated for ashore operational positions. This information can be important to determine staffing levels and training and development needs. Based on input from program areas, many ashore operational positions require marine

certification, marine experience, or specialized knowledge of the marine industry.



**Recommendation**: The CCG should clarify the marine certification, experience, and knowledge requirements for its ashore operational positions and work units, including for Integrated Technical Services; and ensure these requirements are articulated and applied consistently across all CCG regions.

### 3. CCG Crewing Factor

The optimum staffing levels for the number of seagoing personnel needed are currently based on a crewing factor. The crewing factor was originally established using 1993–1994 actual leave data. This factor has been adjusted slightly over time; however, it currently does not reflect all of the elements that are considered to be important when establishing crewing factors (e.g., training and development needs, changing gender roles, an aging workforce, changes to leave provisions). In addition, most shore-based programs do not have a relief factor.



**Recommendation**: The CCG should review and modify the current crewing factor for its seagoing personnel and determine whether a relief factor is needed for any of its ashore operational units.



### **Conclusions and Recommendations (Continued)**

### 4. Career Development Support for CCG Operational Personnel

CCG operational personnel currently have limited support available for developing their careers. This has resulted in gaps with respect to knowledge of career options, challenges getting support, and reliance on external sources for support. One of the biggest challenges with respect to career development is a lack of resources (e.g., time, personnel) to allow personnel to take training. Operational personnel signalled a strong need for additional career development support.



**Recommendation**: The CCG should develop and implement a formal career development program to ensure that operational personnel have the support they need to advance their careers in the CCG.

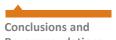
### 5. Sustainability of the CCG Operational Workforce

During the course of the evaluation, a number of issues were identified related to the sustainability of the workforce. These issues included personnel shortages, low morale, and planned departures of operational personnel. Personnel shortages are affecting the level of career development support received and is resulting in high levels of overtime for some shore-based units.

The CCG's Seafarers Establishment Project will be instrumental in establishing how many operational personnel are needed to deliver CCG programs in a sustainable manner. However, the CCG also needs to consider how it will attract people to fill current vacancies and new positions, how it will retain the people it needs, and how it will provide ongoing support for the training and development of its operational personnel.



**Recommendation**: To support the renewal of its operational workforce, the CCG should develop and implement a nationally coordinated recruitment and retention strategy.





### Canada

### **Management Action Plan**

#### RECOMMENDATION 1

**Recommendation 1:** The CCG should develop common definitions to describe the various populations within its workforce and clarify what population is within the scope of the Seafarers Establishment Project.

Rationale: In support of the CCG's Seafarers Establishment Project, the evaluation aimed to develop a profile of the positions that are considered to be within the scope of the project. However, the CCG currently does not have a consistent definition to describe this population. As a result, a definition of operational personnel was developed as part of the evaluation and was used as the basis for analysis throughout the evaluation. The definition currently excludes Integrated Technical Services (ITS) as the Branch has not finalized the information regarding which positions are considered operational (as per the definition developed for the evaluation). As a foundation for the Seafarer's Establishment Project, it is important that the CCG ensure that a consistent definition is used to describe the positions that are included within the scope of the project and that the definition includes all Branches within the organization.

#### **STRATEGY**

The CCG will be required to develop definitions of the categories of all positions across the workforce in alignment with the operational definition referenced in the Recommendation. As a first step, the Coast Guard will define marine operational positions in the context of the Seafarer's Establishment, including those that require a level of marine skill, experience and/or knowledge to perform the functions of the position as well as the organizational context of the position. Given the significant growth and organizational change in most areas of Coast Guard this activity will require input from all Directorates.

MANAGEMENT ACTION	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	Оитрит
Develop a definition of a Marine Operational Position in addition to that already defined, which includes personnel in Integrated Technical Services, Vessel Procurement and at the Coast Guard College.	November 2018		



#### **RECOMMENDATION 2**

**Recommendation 2:** The CCG should clarify the marine certification, experience, and knowledge requirements for its ashore operational positions and work units, including Integrated Technical Services; and ensure these requirements are articulated and applied consistently across all CCG regions.

Rationale: Operational positions are those that typically require marine certification, marine experience, or specialized marine knowledge. These requirements are known for fleet positions, however, they are not currently well-articulated for ashore operational positions. Based on input from program areas, the evaluation was able to determine certification, experience, and knowledge requirements for many of the ashore operational positions. However, these requirements are still unknown for some positions, including those in Integrated Technical Services Branch, Incident Management, and Maritime Security. Information on certification, experience, and knowledge requirements can be important information to assist with determining staffing levels and identifying training and development needs for operational personnel.

#### **STRATEGY**

Coast Guard will, with support of DFO Corporate Services (HR) and data gathered by the DFO Evaluation team, develop the requirements for the level of certification, marine skill, experience and/or knowledge required for the positions identified under Recommendation 1.

MANAGEMENT ACTIONS	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	Оитрит
Assess current status of National Model Work Descriptions and Statements of Merit Criteria OMCs to determine gaps and variances in the level of certification, marine skill, experience and/or knowledge required for the positions identified as <i>Marine Operational Positions</i> . Develop a workplan to address these gaps and variances.	December 2018		
Define the level of certification, marine skill, experience and/or knowledge required for the first half of the positions identified as <i>Marine Operational Positions</i> .	December 2019		
Define the level of certification, marine skill, experience and/or knowledge required for the second half of the positions identified as <i>Marine Operational Positions</i> .	December 2020		



#### **RECOMMENDATION 3**

**Recommendation 3:** The CCG should review and modify the current crewing factor for its seagoing personnel and determine whether a relief factor is needed for any of its ashore operational units.

Rationale: The effective and efficient delivery of the CCG's programs and the operation and maintenance of vessels and maritime assets are dependent upon the existence of an appropriate number of skilled and experienced seafaring personnel. The optimum staffing levels for the number of seagoing personnel that the CCG needs is currently based on a crewing factor. The crewing factor was originally established using 1993/94 actual leave data. This factor has been adjusted slightly over time; however, it currently does not reflect all of the elements that are considered to be important when establishing crewing factors (e.g., training and development needs, changing gender roles, an aging workforce, changes to leave provisions). In addition, most shore-based programs do not have a relief factor.

#### **STRATEGY**

The Seafarer's Establishment will define the number of *Marine Operational Personnel* in total and the first step will be to refine the crewing factor. CCG Operations has over the past number of years been defining the crewing factor based on historical data of leave usage. This strategy must evolve the methodology for a crewing factor to include elements of required training, career development, realities of the changing demographic and other factors that should be included to ensure the organization attracts and retains highly competent personnel.

MANAGEMENT ACTIONS	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	Оитрит
Define the crewing methodology (the equation) for Seagoing Personnel.	September 2018		
Quantify the factors that affect each of the elements of the methodology, i.e., relief factor for training, relief factor for career development, etc.	December 2019		
Perform a Gender Based Analysis plus of the methodology and factors.	December 2019		
Coast Guard Operations to identify those 24/7 work units that require a relief factor and determine where gaps may exist between relief requirements and actual positions.	December 2018		



#### **RECOMMENDATION 4**

**Recommendation 4:** The CCG should develop and implement a formal career development program to ensure that operational personnel have the support they need to advance their careers in the CCG.

Rationale: The effective and efficient delivery of CCG programs is dependent on the existence of skilled and experienced personnel. These personnel generally require marine certification, marine experience or specialized knowledge of the marine industry and thus require specialized training to help maintain certifications and advance their careers. In addition, the CCG relies on fleet to fill many of its shore-based positions, thus non-technical skills (e.g., human resource management, financial management) are also important for the career development of personnel. CCG operational personnel currently have limited support available for developing their careers. This has resulted in gaps with respect to knowledge of career options, challenges getting support, and reliance on external sources for support.

#### **STRATEGY**

The Coast Guard acknowledges that this is a recommendation that will be applied to all positions within the organization. Coast Guard has recently launched a Force Generation Initiative that will develop strategies, products, procedures, frameworks processes, etc. to ensure Coast Guard is able to recruit and develop a diverse, highly trained, engaged, professional and at-the-ready workforce for today and tomorrow. This team will consult heavily across the organization, both seagoing and shore based employees, management and senior management to determine highest priority requirements to support the training and development of our employees including requirements for career development and career management tools and assistance.

MANAGEMENT ACTIONS	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	ОUТРUТ
Coast Guard will consult with seagoing and shore-based employees, managers and senior management on highest priority requirements for strategies and tools related to supporting employees in their career with Coast Guard.	April 2018		
Coast Guard will prioritize requirements and build a workplan which will include, at a minimum, developing tools to help employees manage their career within Coast Guard. Dependant on requirements and resources the deliverables could include career mapping tools and more formalized career development programs.	June 2018		
Define a career development program for operational personnel.	September 2019		





#### **RECOMMENDATION 5**

**Recommendation 5:** To support the renewal of its operational workforce, the CCG should develop and implement a nationally coordinated recruitment and retention strategy.

Rationale: During the course of the evaluation, a number of issues were identified related to the sustainability of the workforce. These issues included personnel shortages, low morale, and planned departures of operational personnel. Personnel shortages are affecting the level of career development support received and is resulting in high levels of overtime for certain shore-based units. The CCG's Seafarers Establishment Project will be beneficial in that it will establish how many operational personnel are needed to deliver CCG programs. However, the CCG also needs to consider how it will attract people to fill current vacancies and new positions, how it will retain the people it needs, and how it will provide ongoing support for the training and development of its operational personnel.

#### **STRATEGY**

The CCG is a unique organization within the structure of the Federal Government. No single strategy will address the combined needs of employees and the organization. Therefore, a multi-faceted plan where employees are able to choose their career path and see the potential of their aspirations is the most effective. At the same time, we will implement a culture of continuous recruitment and retention—centered on the concept of becoming a *Training-focused Organization*.

MANAGEMENT ACTIONS	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	Оитрит
Coast Guard will take stock of all the current recruitment activities and plans being managed and develop a plan to align those efforts.	June 2018		
Coast Guard will continue to advance its pay stabilization initiative linked to the Phoenix Pay System.	ongoing		
Coast Guard will develop a nationally consistent retention strategy, including a focus on health and wellness.	March 2019		
Coast Guard will develop a nationally consistent recruitment strategy.	March 2020		

