EVALUATION TO SUPPORT CANADIAN COAST GUARD FORCE GENERATION

Evaluation Report

Central & Arctic Region (St. Lawrence Sector)

Atlantic Region

Western Region

Central & Arctic Region (Great Lakes Sector)

Table of Contents

Evaluation Context

SCOPE OF EVALUATION

The evaluation to *Support CCG Force Generation* was designed as a developmental evaluation[1] to gather information to support the CCG's Force Generation Project. The evaluation was intended to build on the *Evaluation in Support of the CCG's Seafarers Establishment* (2017-2018) and explored three key issues (see Appendix A for a list of evaluation questions).

CREWING FACTOR METHODOLOGY
Determine the factors to be included in the methodology for calculating the CCG's crewing factor for seagoing personnel.

GAPS IN CERTIFICATES OF COMPETENCY
Explore issues related to certificates of competency for seagoing personnel (challenges obtaining and maintaining, and alternatives).

GOVERNANCE FOR PERSONNEL DEVELOPMENT
Conduct a mapping exercise to determine all groups within the CCG (seagoing and fleet personnel) that have responsibilities for personnel development; assess mechanisms in place for coordination and information sharing.

The scope of the evaluation did not include: the calculation of a new crewing factor; an assessment of the magnitude, appropriateness, or quality of personnel development-related products and tools; or personnel development activities funded through the Oceans Protections Plan.

CCG FORCE GENERATION PROJECT

The Force Generation Project was initiated in response to organizational changes, which expanded the CCG's core programs. The main objective of the Project is to build a coordinated approach within the CCG that supports the recruitment, retention, career development, and wellness of CCG personnel.

---

[1] Developmental evaluations are used to support innovation by collecting and analyzing data to support informed and ongoing decision-making as part of the design, development, or implementation of a program, initiative, or project.

3 | Table of Contents | Evaluation Context | Evaluation Methodology | Evaluation Findings | Conclusions and Recommendations | Appendices

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Methodology

Lines of Evidence

FOCUS GROUPS

- Held one NHQ focus group with 10 participants to consult on the methodology for developing a crewing factor.
- Held eight regional focus groups (Victoria, St. John's, Quebec City, and Sarnia) to discuss the methodology for developing a crewing factor and to determine how the model could be applied to the CCG; and to discuss certification gaps and alternatives.
- Participants totalled about 100 personnel from across the CCG and primarily included personnel from fleet who work ashore.

MAPPING EXERCISE

- Administered an excel-based template to all Regional Directors and NHQ Directors (approximately 50 individuals) to gather information on their level of involvement with activities related to recruitment, training, career management, and wellness.

INTERVIEWS

- Conducted interviews with 32 individuals in the regions and NHQ to discuss level of involvement with activities related to recruitment, training, career development, and wellness; and to understand the level of coordination and information sharing with respect to these activities.

DATA ANALYSIS

- Gathered and examined data from MariTime related to certificates of competency, exemptions, and training.

DOCUMENT REVIEW

- Reviewed relevant documents related to the CCG Force Generation Project, alternative practices for crewing methodology in other jurisdictions (domestic and international), and certification requirements.

To facilitate data collection, four site visits were conducted (Victoria, St. John's, Quebec City, and Sarnia). As part of each visit, a special regional management board meeting was organized to discuss the site visit activities and results and to obtain input from senior management.

4 | Table of Contents | Evaluation Context | Evaluation Methodology | Evaluation Findings | Conclusions and Recommendations | Appendices

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Methodology

Limitations of Methodology

FOCUS GROUPS

- Participants were invited to attend the focus groups based on their experience with the topics being discussed. Operational requirements may have limited the ability of some personnel to participate. This was particularly the case for seagoing personnel, as few were able to attend. To mitigate this, former seagoing personnel, who are currently in shore-based positions, were included to the extent possible.

MAPPING EXERCISE

- Templates were not received from all directorates within NHQ. This did not have a significant impact on the results as templates were received from all regional directorates and the evaluation team conducted targeted follow-up with NHQ directorates that have a key role in personnel development to ensure those templates were completed.[2]
- The information provided in the mapping templates is a subjective assessment of each directorate's level of involvement in the activities included in the template. This could have resulted in some inconsistency in the information provided. To mitigate this, interviews were conducted with regional directors and NHQ directors to clarify the information provided in the template.

DATA ANALYSIS

- It was not possible to use MariTime data to assess the gaps in certification and training, as the data are not reliable (i.e., they are incomplete and inconsistent). This was confirmed through analysis and validation with CCG program representatives and focus group participants in all regions. Program documentation also noted that the certification and training modules in MariTime have not been validated for quality on a regular basis due to the lack of business rules and training for officers and clerks.
- Instead of using MariTime, regions maintain separate records (e.g., excel spreadsheets, human resource plans) to track and manage training and certification gaps and needs. There are variations in how this is being done across the regions.
- The evaluation had to rely on qualitative information to understand gaps in certification and training.

[2] Templates were received from the following NHQ directorates: CCG College, Events and Outreach, Workforce Development and Information Strategies (Integrated Business Management Services), Diversity and Inclusion, Preparedness and Response, Operational Business, Operational Personnel, Operational Support, and Safety and Security.

Evaluation Findings

Crewing Factor Methodology: Current CCG Method and Key Gaps

Finding: There is a need for a comprehensive methodology to determine an updated crewing factor for CCG seagoing personnel. A crewing factor methodology reflective of the complexity of the CCG operations and evolving context has never previously existed. A new methodology can address many of the gaps and limitations of the current crewing factor; however it will require resources and coordinated support from several key areas of the CCG.

CURRENT CCG CREWING FACTOR CALCULATION

The CCG currently calculates the number of personnel required (N) based on the number of positions in the crewing profiles for vessels and a crewing factor determined in 1995.[3]

- The crewing profiles establish the number of positions (P) that need to be staffed on each vessel.

P

- For approximately 90% of seagoing personnel, the current crewing factor is 2.5 (i.e., 2.5 personnel are needed for each position in the crewing profile).

2.5

days in one year (365)
_____
days available for work (166.1)

- The current factor is based on an analysis of 1993–1994 actual leave data for five types of paid leave and has been slightly adjusted since then.

N = P X 2.5

The current crewing factor provides relief for approximately 16 days out of 182.5 work days per person each year.

GAPS IN THE CURRENT CREWING FACTOR

Based on an analysis of crewing factor models, the results from the 2017-2018 evaluation, and consultation with CCG personnel, there are known gaps and limitations with the current calculation.

- Workload analysis on vessels has never been conducted. Therefore, the number of positions (P) in the crewing profiles may not accurately represent the demand for personnel on vessels.

- The current crewing factor considers only some leave provisions and does not consider the relief needed for training personnel. Therefore, it overestimates the availability of an individual employee, which results in underestimation of the number of personnel (N) required.

- Differences across seagoing units (e.g., size of vessel, position) have never been analysed. Therefore, the factor may not accurately reflect those differences.

- Some units indicated that they have never been able to staff to the factor of 2.5 due to resource constraints.

[3] Each CCG vessel has an official crewing profile of personnel positions, which incorporates the requirements of Transport Canada's Safe Manning Regulations for minimum certification and technical training, and the CCG fleet requirements for minimum relevant experience. All positions in the crewing profile must be staffed as per the requirements in the crewing profile in order to sail the vessel. The crewing factor represents the number of personnel needed for each position of the crewing profile for continuous 24/7 operations, to ensure compliance with the crewing profiles.

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Methodology for Calculating a New Crewing Factor for the CCG

DEVELOPMENT OF A METHODOLOGY FOR CALCULATING A NEW CREWING FACTOR

The *Evaluation in Support of the CCG's Seafarers Establishment* included best practices research to identify methodologies for developing crewing factors. The manpower requirements determination process, implemented by the United States Coast Guard (USCG), was found to have the most comprehensive and rigorous methodology. The evaluation team used the approach of the USCG to develop a methodology for calculating a new crewing factor for the CCG. This methodology was used for consultation with the CCG and was then revised to reflect a feasible approach that could be applied in the CCG context. The methodology has four components, which are shown below.
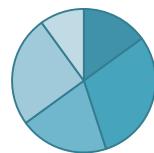
1a. Demand Analysis	1b. Supply Analysis	2. Calculation of Unit Personnel Required and Crewing Factor	3. Implementation of the Crewing Factor
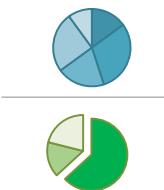
IMPORTANCE OF ESTABLISHING THE UNIT OF ANALYSIS

The crewing factor methodology should be applied to a CCG unit, which is a sub-group of CCG seagoing personnel with similar conditions related to workload, individual time, leave provisions and training needs. The CCG will need to determine appropriate units before implementing step 1a and 1b of the methodology. Demand and supply analysis will need to be completed for each unit.

A detailed illustration and description of the methodology is provided on the next page.

Canada

Evaluation Findings

Methodology for Calculating a New Crewing Factor for the CCG

The following illustrates the methodology for the CCG to calculate a new crewing factor for seagoing personnel.

1a. Demand Analysis

Based on strategic documents, regulations, CCG mandate, program guides and levels of service:

- Establish CCG program requirements and unit work requirements; and
- Determine how much time it takes to complete the unit work, the **total unit workload**, in hours per year.

Total Unit Workload
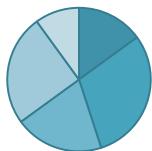
For the CCG, the methodology suggests five key categories of workload.

1b. Supply Analysis

Based on collective agreements, regulations and policies, and training needs and requirements:

- Determine the total assigned individual time (e.g., on-cycle working hours in one year);
- Establish the amount of time an employee is unavailable to do the workload of the unit, in hours per year; and
- Subtract unavailable time from the total assigned individual time to determine **individual program time**, in hours per year.

Training

Leave

Individual Program Time

For the CCG, the methodology suggests an analysis of how much time is required for leave and training needs.

2. Calculation of Unit Personnel Required and Crewing Factor

The number of unit personnel required (N) is the ratio of the **total unit workload** and the **individual program time**.

$$N = \frac{}{}$$

For the CCG, the crewing factor (CF) of the unit is the ratio of the unit personnel required (N) and the number of positions (P) in its crewing profile.

$$CF = N/P$$

3. Implementation of the Crewing Factor

The implementation of the crewing factor requires coordinated support from other functions of the organization.

The timeline and the actions for implementation of the crewing factor are dependent on factors related to feasibility, risk, and priorities.

Risk management   Human Resources

Resource management   Training capacity management

Coordinated Support

Workforce planning   Workforce management
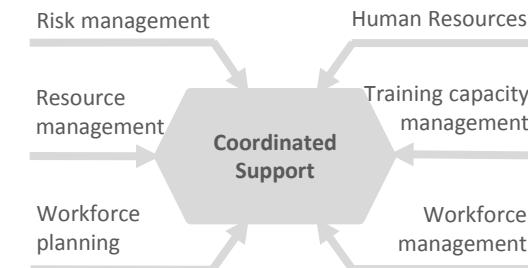
For the CCG the crewing factor is largely based on human and financial resources, not all six elements listed above.

8 | Table of Contents | Evaluation Context | Evaluation Methodology | Evaluation Findings | Conclusions and Recommendations | Appendices

Canada

Evaluation Findings

Demand Analysis

Finding: The CCG has never conducted a demand analysis to support the development of its crewing factor; however there is a need to undertake one to improve the understanding of the workload on vessels and to provide evidence-based information for decision-making.

CATEGORIZATION OF WORKLOAD ON VESSELS

As noted previously, the crewing profiles establish the number of positions required on each vessel. However, because a workload analysis for fleet has never been conducted, the number of positions in the crewing profiles may not accurately represent the number of personnel that are needed to complete the workload.

The crewing profiles present some limitations to the demand analysis because it assumes that changes to the number of personnel aboard (e.g., to the crewing profiles) are possible, which is not likely the case in the short-term. Despite the limitations, there is still support for conducting a demand analysis because CCG personnel reported that the workload on vessels has been increasing and it would be useful to have a better understanding of the impact of this increase on CCG program operations.

If a demand analysis is to be conducted, the evaluation identified five workload categories, which could be used to describe the work on vessels. Note that some examples of the types of activities that could be included in these categories have been provided; but it is not an exhaustive list.

CCG program-delivery activities	Determined by the program requirements and levels of service (e.g., search and rescue, icebreaking, navigation services, environmental response, science, conservation and protection). These activities are the raison d'être of seagoing operations.
Regulatory activities	Required by law and Transport Canada regulations (inspections, safety and security, logistics, watchkeeping, recordkeeping, passage planning, maintenance of charts).
Administrative work	Includes program administration, ship administration, strategic planning, personnel and resource management, leadership.
Operations and vessel support	Needed to keep the ship and seagoing personnel operating safely (maintenance, fueling, provisioning, hotel services).
Training	Includes on-the-job training, familiarization, mentoring, coaching, peer-to-peer, vessel-specific training, drills and exercises.

9 | Table of Contents | Evaluation Context | Evaluation Methodology | Evaluation Findings | Conclusions and Recommendations | Appendices

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Demand Analysis

METHODOLOGICAL CONSIDERATIONS FOR DEMAND ANALYSIS

In conducting an analysis to determine how much time is required to complete all tasks and work activities within the responsibilities and requirements of the unit, the following would need to be considered.

DATA AVAILABILITY

- Given that an analysis of the workload on vessels has never been conducted before, and data on workload has not been consistently collected, the workload analysis would likely require new data collection. Potential sources to consider are documents (e.g., levels of service, logbooks, management tools), observations, reviews of other marine organizations, and qualitative information from experts in CCG operations.

VARIABILITY OF FACTORS THAT AFFECT WORKLOAD

- Depending on the specific context, the volume and the categorization of workload may vary by size of vessel, department, program or vessel stage (i.e., operating, alongside, dry-dock). Some activities may be classified across several categories (e.g., maintenance, administration).
- It may be necessary to conduct a separate workload analysis for different units in order to reflect the operational, regional, and contextual specifics (e.g., seasonal units).
- Other factors, such as regulatory changes or composition of personnel, may also have an impact and should be considered (e.g., increased need for on-the-job training due to an increased number of new or temporary staff, increased administrative work due to new regulatory tracking requirements).

RECENT CONTEXTUAL FACTORS

- Given the nature of the seagoing operations, the crewing profiles set the number of positions on vessels. Since 2012, requirements for CCG services increased due to federal priorities and federal horizontal initiatives. The current crewing profiles do not provide the flexibility to respond to the increased demand.

Based on the current crewing profiles, 82% to 95% of required deck and engineering officers are needed for safe manning positions, which are a mandatory requirement to operate the vessel.

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Supply Analysis: Training

Finding: It is a challenge for seagoing personnel to have time for training and to take leave, due to a shortage of relief personnel. The methodology for calculating the CCG crewing factor needs to include a supply analysis to determine how much time personnel require for leave and training. There are certain leave provisions and training requirements that have a large impact on relief, and which should be included in the supply analysis.

TRAINING CATEGORIES THAT HAVE THE BIGGEST IMPACT ON RELIEF

In the operational context of the CCG, training is an important aspect of professional development for personnel. However, it is also an important vehicle to ensure the safe and effective operation of vessels. The amount of time needed for seagoing personnel to take training is currently unknown. In addition, training now largely must occur during a person's off-cycle (i.e., during their time off).

The crewing factor methodology takes into account the relief that is required to ensure that all training can be taken during a person's on-cycle. Hence, it relies on the assumption that enough relief will be available.

The training that takes place off of the vessel, and which requires relief, can be grouped into six broad categories. Note that some examples of the types of training that could be included in these categories has been provided; but it is not an exhaustive list.

Training analysis is required as part of the crewing factor methodology to determine the amount of time needed for one unit personnel to take training during the on-cycle.

Regulatory training	Mandatory training required by law and Transport Canada regulations (e.g., marine emergency duties, first aid, food safety, electronic chart display and information system).
CCG program-specific training	Training necessary to carry out CCG program activities (e.g., incident command system, armed boarding, chainsaw, first response oil spill, bear aware).
Technical training	Training required to ensure the safe operation of vessels and the safety of personnel on vessels (e.g., confined space, deck safety, logistics, asbestos).
CCG-mandated and public-service-mandated training	Training required of CCG and federal government employees (e.g., health and safety, WHMIS, harassment, orientation to public service).
Developmental training	Competency-based training for career progression (e.g., leadership and management, language training, scholarships, aspired manager/director program).
Wellness and personal development	Training for an individual's development (e.g., mental health, work-life balance, conflict management, retirement, Indigenous awareness).

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Supply Analysis: Training

METHODOLOGICAL AND FEASIBILITY CONSIDERATIONS FOR TRAINING

In conducting a training analysis that allows enough relief to meet training needs and priorities, the following would need to be considered.

IDENTIFICATION OF ALL TYPES OF TRAINING

• Each of the training categories that have been identified is very broad and includes a wide range of training courses, all of which would have to be taken into consideration in the analysis.

DATA AVAILABILITY

• There are currently no reliable data from CCG administrative systems to be used for a historical data analysis of the time spent on training. Thus, a collaborative effort of data analysis experts, national and regional program and training specialists, and the CCG College will be required to identify alternative ways to collect this information.

• Some documentation does exist, which would help inform the analysis of training needs, particularly for regulatory and CCG-specific training.

VARIABILITY OF FACTORS THAT AFFECT TRAINING NEEDS

• There may be differences in the type of training required across regions, vessels, departments, classifications, seniority, and over time. The variability will need to be considered in the analysis.

NATIONAL AND REGIONAL NEEDS

• National training requirements as well as regional-specific training needs and priorities should be taken into consideration in the training analysis.

Evaluation Findings

Supply Analysis: Leave

LEAVE CATEGORIES THAT HAVE THE BIGGEST IMPACT ON RELIEF

The CCG's current crewing factor is based on a 1993-1994 analysis of five types (i.e., sick, training, compensatory, statutory holiday, and other). Since then, the context and provisions with respect to leave have changed. For example, family-related leave is a recent provision that has been added to collective agreements; and it is more common now for personnel to take parental leave.

The crewing factor methodology takes into account the increased relief that is required to ensure that personnel can be replaced when using the various types of leave provisions that are available to them. Hence, it relies on the assumption that enough relief will be available.

The different types of leave categories were examined and prioritized in terms of impact and significance on relief.

Leave analysis is required as part of the crewing factor methodology to determine and quantify the average leave time needed by one unit personnel. The complexity of this analysis will require specialised expertise in data analysis, expertise in CCG operations, and consultations with unions.

Leave categories that have the biggest impact on relief in terms of magnitude and significance.	• annual leave (which should include personal days) • sick, injury, and long-term disability leave • maternity, parental, and adoption leave • leave without pay • compensatory leave and layday leave
Leave categories that are expected to have an increasing impact on relief given recent changes to leave provisions and work related to CCG Force Generation.	• assignments for organizational needs and priorities • leave without pay (for developmental purposes) • education leave, including developmental training • family-related leave • maternity, parental, and adoption leave
Leave categories that were considered to have little or no impact on relief, and should not be considered in the leave analysis.	• compassionate care • bereavement leave • leave for religious purposes • leave for judicial duties and union affairs

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Supply Analysis: Leave

METHODOLOGICAL AND FEASIBILITY CONSIDERATIONS FOR LEAVE

In conducting a leave analysis to determine how much relief time is required to allow seagoing personnel to take leave, the following would need to be considered.

DATA AVAILABILITY

- Use of historical data for some categories of leave is feasible, but there are limitations to consider. For example, most leave categories were not used to the extent needed and requested due to operational constraints and lack of sufficient relief personnel; thus, historical data would underestimate the actual need. Qualitative analysis may be required to complement administrative data.
- Some categories of leave will require data collection and/or modelling because they are recently added provisions and no historical records have been accumulated.

VARIABILITY OF FACTORS THAT AFFECT LEAVE

- The analysis should ensure that the variability across departments, regions, seniority and over time are considered.

LEAVE BANKS

- Seagoing personnel currently have large leave banks (e.g., annual leave, compensatory, and layday leave) that must be considered in the leave analysis.

OTHER

- Some categories of leave may require relief for longer than their duration due to logistics and scheduling issues (i.e., from an operational perspective, it is difficult to remove a person from a vessel for a short period of time).
- Requirements for accommodation (e.g., gradual return to work following an injury) and the related impact on relief should be considered.
- The leave analysis should apply a forward-looking approach to address changes in leave provisions that are very recent or anticipated in near future.

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Certificates of Competency: Gaps

Finding: The CCG is currently experiencing challenges finding personnel with certain certificates of competency. These gaps are due to an overall shortage of personnel and a number of challenges related to upgrading certificates, including the lack of formal processes for training and development; the availability of, and access to, training; and individual circumstances of personnel. The evaluation did not identify any challenges with respect to maintaining certificates of competency.

CERTIFICATION REQUIREMENTS FOR SEAGOING PERSONNEL

The International Maritime Organization (IMO) is a specialized agency of the United Nations with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. The IMO is responsible for several conventions, including the *Standards of Training, Certification and Watchkeeping for Seafarers* (STCW), which establishes international requirements for seafarers.

Canada is a signatory to this convention and has national regulations in place to ensure compliance with the STCW. Transport Canada is responsible for the regulations, which put in place minimum certification requirements for seagoing personnel to ensure the safe operation of the vessels. The CCG also has certification requirements for CCG-related program operations.

To maintain certificates of competency, seagoing personnel must complete an approved refresher training course at a recognized institution every five years. To update certificates of competency, seagoing personnel must take the required training, obtain the required number of sea time hours, and pass Transport Canada examinations.

GAPS IN CERTIFICATES OF COMPETENCY

Findings from the evaluation determined that the CCG currently is experiencing gaps primarily for four certificates of competency:

- Master Near Coastal;
- Chief Mate Near Coastal;
- Second Class Engineer; and
- Third Class Engineer.

It is anticipated that gaps for First Class Engineer certificates will also exist in near future due to the large number of eligible retirees.

These gaps were identified through qualitative discussion and analysis, as there are a number of limitations with respect to MariTime data. The certification data are not reliable and the system does not provide some of the contextual information that is important when analyzing information on certification.[4]

---

[4] For example, even if, based on certification data, there are enough people with a particular certificate, it does not mean that they can fill a position that requires that certificate, as they may not be available or they may not possess all of the competencies required for the position.

Canada

Evaluation Findings

Certificates of Competency: Challenges Upgrading

MANAGEMENT OF TRAINING AND SEA TIME

- CCG uses the scholarship program to provide support to personnel to upgrade certificates (program varies by region); funding for scholarships has increased in the current fiscal year.
- Otherwise, the management of training and sea time is largely done ad hoc and on a case-by-case basis and is often done on an individual's own time (i.e., on their off-cycle).
- There is a high reliance on an individual's initiative to identify needs for training and sea time and to request support.
- Sea time can be challenging to obtain because of limitations on the vessel size in some regions, particularly in Western Region and Central and Arctic Region (Great Lakes Sector).

AVAILABILITY OF, AND ACCESS TO, TRAINING

- There is a lack of instructors for the training that is needed to upgrade certificates.
- Western region faces challenges accessing courses due to its distance from the College and the limited number of marine institutions in the region.
- Central and Arctic Region (St. Lawrence Sector) faces challenges accessing courses in French.
- There is little financial support available to personnel to take training (i.e., cost for training, time-off, travel time), thus requires personal investment.
- Training schedules often do not align with crew schedules.

Key challenges upgrading certificates

PERSONNEL SHORTAGES

- There is a lack of people to provide relief to allow personnel to take required training during their on-cycle time, or participate in developmental assignments, which are required to upgrade certificates.

INDIVIDUAL / REGIONAL CIRCUMSTANCES

- CCG personnel are often required to invest their own time and money to upgrade certifications, which can present financial implications and impact the work-life balance of personnel. This can impact personnel's ability to upgrade their certifications.
- Personnel may not be able to advance in their current region (i.e., some regions have higher-level positions than other regions, due to types of vessels being used) and thus do not see a value in upgrading certificates.

Evaluation Findings

Certificates of Competency: Solutions to Address Challenges

Finding: The challenges with respect to upgrading certificates of competency need to be addressed. The CCG College was identified as one of the primary ways in which the availability of, and access to, training can be improved.

ROLE OF THE CCG COLLEGE IN TRAINING

The CCG College is responsible for the officer training program (OTP), which trains individuals to be ship's officers (navigation or marine engineering) who will serve at sea in the CCG fleet. The College is also responsible for delivering the CCG's marine communications and traffic services (MCTS) training program. The College may also offer other training courses to CCG personnel; however this is limited and done on an ad hoc basis, as the College is not funded for training activities outside of the OTP and MCTS training programs.

There is a need to improve the availability of, and access to, training, particularly because it is a tool to maintain and improve personnel readiness and safe and effective operations. Expanding the role of the College was consistently raised in all regions as the most feasible solution to address the challenges related to training and upgrading certifications. This could include activities such as:

- providing more online or distance courses;
- having instructors travel to different regions to deliver courses;
- implementing a training program to assist ship's crew with upgrading certifications to become ship's officers;
- improving coordination with the regions and NHQ to determine training needs; and
- developing formal partnerships with marine institutions[5] that could offer required training in different locations across the country.

For the College to expand its role in training:

$ There would be resource implications, which may lead to the need for additional funding.

Better coordination between NHQ, regions and the College would be required to ensure training needs are identified and courses are planned and scheduled to align with crew schedules.

This finding is consistent with the "Evaluation of the Canadian Coast Guard College" (2017-2018), which found that there was a need for the College to take on a more prominent role as the center of expertise in CCG training. The evaluation included a recommendation that "…the role of the College be strengthened to allow its recognition as the Centre of Expertise for marine training for the CCG…"

[5] For example, Memorial University's Marine Institute offers courses required by Transport Canada for upgrading certificates of competency online. Courses are structured in 30-minute modules to allow flexibility.

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Certificates of Competency: Solutions to Address Challenges

OTHER POSSIBLE SOLUTIONS TO ADDRESS GAPS IN CERTIFICATES OF COMPETENCY

In addition to expanding the role of the College, CCG personnel made suggestions for other ways in which some of the challenges related to certification gaps could be addressed.

ADDRESS PERSONNEL SHORTAGES

- Invest in effective promotion, including a recruitment strategy, to attract new personnel.
- Implement a career development program to provide more opportunities to upgrade certifications and help retain personnel.
- Establish regional or national relief pools of indeterminate staff, which can be accessed to address relief needs.

Recruitment and career development were explored in the "Evaluation in Support of the CCG's Seafarers Establishment" (2017-2018) and were also identified as issues in this evaluation. For more on these topics, see pages 21 and 26.

IMPROVE ADMINISTRATIVE PROCESSES

- Improve the planning and coordination between crewing staff and training staff to better align the training opportunities with the crewing schedules.
- Include training dates in the leave plans of vessels (for both on- and off-cycle training) so that training and leave are better planned.

INCREASE SUPPORT AVAILABLE TO PERSONNEL

- Increase the funding and support that is available to personnel, including costs for training and related travel and time to take the training.

IMPLEMENT CHANGES TO THE CREWING SYSTEM

- Better align crewing cycles to facilitate rotational assignments and offer developmental opportunities.

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Personnel Development Governance: Definition

CONTEXT FOR THE MAPPING EXERCISE

To support the work being conducted as part of the Force Generation Project, the evaluation included a mapping exercise, which was designed to understand what activities are undertaken within the organization related to the development of both seagoing and shore-based CCG personnel. The activities included in the mapping were organized into four main pillars, each with its own sub-activities.

RECRUITMENT AND STAFFING
The process of bringing new people into the CCG. Included the sub-activities of: development of recruitment strategies, outreach, communications, analysis of recruitment efforts, staffing process, and selection of individuals.

TRAINING
Included both operational and non-operational training. Included the sub-activities of: development of policies and standards, identifying training needs, coordinating training, developing curriculum, and delivering training.

CAREER MANAGEMENT
The process that enables an employee to move toward career goals. Included sub-activities of: development of policies and standards, tools for career advancement (e.g., mentoring, coaching, career counselling, rotational assignments), and forward-thinking planning (e.g., succession planning).

WELLNESS
The state that is achieved when employees' personal and organizational needs are met. Included the sub-activities of: promoting wellness, strategies and initiatives for diversity and inclusion, and strategies and initiatives for retention.

Evaluation Findings

Personnel Development Governance: Responsibility for Activities

Finding: It was challenging to complete a mapping exercise because the responsibility for personnel development activities is divided amongst many areas within the CCG and there is no clear focal point for many of the activities. As a result, many activities are undertaken at the directorate level, some of which occur ad hoc as opportunities arise, or as time allows.

Pillar	Sub-Activity	National-Level						Regional-Level	Directorate-Level NHQ and Regions		
		IBMS (WDIS)	Operational Personnel	Operational Support	Diversity & Inclusion	Events and Outreach	College[6]	IBMS	College	Fleet Directorates[7]	Shore-based Directorates
Recruitment and staffing	Recruitment strategies	F/S					F				
	Outreach for recruitment					F/S	F	F/S			
	Communications for recruitment	F/S				F/S	F				
	Data and analysis	F/S					F				
	Staffing processes	S					F	S	S	F/S	S
Operational Training	Policies and standards (compliance)		F	S							
	Training needs identification		F/S				F/S			F/S	S
	Training coordination							S	F		
	Curriculum development[8]						F/S				
	Training delivery						F/S				
Career Management	Policy development										
	Career advancement								S	F/S	S
	Forward-thinking planning								S	F/S	S
Wellness	Wellness promotion	F/S							F/S	F/S	S
	Awards and recognition administration	F/S						F/S			
	Diversity and inclusion			F/S					F/S	F/S	S
	Retention strategies								S	F/S	S

Legend

- (blue) Lead role
- (green) Administrative support
- F Fleet personnel
- S Shore-based personnel

This table provides an overview of where key lead responsibilities for personnel development activities lie. There are some exceptions, which are reflected in the notes or in the following slides. This table does not reflect where some directorates do not have the lead, but may be involved in these activities.

The evaluation did not assess what activities were being undertaken in these areas or their effectiveness.

[6] The College is primarily responsible for the OTP; however it also develops curriculum and delivers courses for other programs (e.g., marine electronics development training program (MELDEV)).

[7] Fleet directorates include personnel who work on vessels and in shore-based positions (e.g., crewing officer).

[8] Some directorates are involved in curriculum development and delivery for specific operational training (e.g., safety and security, logistics, storekeeping).

Canada

Evaluation Findings

Personnel Development Governance: Responsibility for Activities

RECRUITMENT: SUMMARY OF RESPONSIBILTIES

Recruitment strategies, outreach, communications, data and reporting on recruitment

SCOPE OF INVOLVEMENT		ACTIVITIES
NATIONAL	Multiple leads	• One FTE in Integrated Business Management Services (IBMS) is working on target-specific recruitment strategies (e.g., youth). • Outreach and Events Directorate (DC Operations) undertakes outreach activities and communications. • Operational Personnel is responsible for recruitment for MCTS. • IBMS provides content for communication material. • IBMS tracks outreach activities.
REGIONAL	Responsible lead for outreach/ No lead for other activities	• IBMS provides logistical support for outreach events (e.g., schedule and organize events). • Personnel from Directorates may attend outreach events. • Central and Arctic Region has a temporary team in place working on recruitment.
CCG COLLEGE	Responsible lead	• The College is responsible for all activities related to recruitment for the OTP. • Dedicated resources are in place for this activity.

Multiple leads: more than one directorate has lead responsibility for activities in this pillar.
No lead: no directorates have lead responsibility for activities in this pillar.
Responsible lead: one directorate has the responsibility for activities of this pillar.

KEY OBSERVATIONS FOR RECRUITMENT

- There is little knowledge of recruitment activities and strategic directions amongst CCG personnel in NHQ and regions.
- IBMS relies on regional program personnel to attend outreach events, but directorates have limited capacity to participate.
- A lack of both resources and a coordinated approach for recruitment activities have an impact on the CCG's ability to address personnel shortages.

The lack of a coordinated recruitment strategy was a key finding of the "Evaluation in Support of the CCG's Seafarers Establishment" (March 2018). The management action plan included the development and implementation of a national recruitment strategy; however, the action is not targeted for completion until March 2020.

Not being able to attract and foster a diverse, skilled, high performing, and engaged workforce has been identified as a corporate risk that could impact on the ability of the department to deliver its programs.

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Personnel Development Governance: Responsibility for Activities

STAFFING: SUMMARY OF RESPONSIBILTIES

SCOPE OF INVOLVEMENT		ACTIVITIES
NATIONAL	Shared responsibility	• Staffing is delegated to hiring managers. • DFO Human Resources (HR) provides advice and support for the staffing process. • IBMS provides administrative support for HR staffing requests. • IBMS updates the CCG HR plan.
REGIONAL	Shared responsibility	• Staffing is delegated to hiring managers • DFO Human Resources provides advice and support for the staffing process. • IBMS provides administrative support to complete the staffing request and updates the regional HR plan. • Directorates develop their own directorate-specific HR plan.
CCG COLLEGE	Shared responsibility	• The College is responsible for staffing positions at the College. • DFO Human Resources provides advice and support for the staffing process. • IBMS provides administrative support to complete the staffing request.

Multiple leads: more than one directorate has lead responsibility for activities in this pillar.
No lead: no directorates have lead responsibility for activities in this pillar.
Responsible lead: one directorate has the responsibility for activities of this pillar.
Shared responsibility: the responsibility for activities is shared between directorates.

KEY OBSERVATIONS FOR STAFFING

• There are no nationally consistent statements of merit criteria available for hiring managers.
• Not all directorates use IBMS support; some work directly with DFO Human Resources to complete their staffing processes.
• Regional directorates reported that staffing activities are not timely enough to respond to operational needs.

22 | Table of Contents | Evaluation Context | Evaluation Methodology | Evaluation Findings | Conclusions and Recommendations | Appendices

Canada

Evaluation Findings

Personnel Development Governance: Responsibility for Activities

OPERATIONAL TRAINING: SUMMARY OF RESPONSIBILTIES
Policies and standards, curriculum development, delivery, identifying training needs, coordination

SCOPE OF INVOLVEMENT		ACTIVITIES
NATIONAL	Multiple leads	• Operational Personnel (fleet) and Operational Support (program) are responsible for ensuring compliance with industry standards. • Different directorates have responsibility for curriculum development and the delivery of some specific training courses (e.g., Safety and Security is responsible for safety audit course, Operational Personnel is responsible for storekeeper and logistics officer training). • Operational Personnel develops a national training plan and national-level statistics on training, based on input from regions.
REGIONAL	Multiple leads	• Fleet directorates have training officers and clerks to identify training needs and to organize training for seagoing personnel. • Shore-based directorates identify their own training needs. • IBMS provides administrative support to shore-based directorates (e.g., books courses, organizes travel).
CCG COLLEGE	Responsible lead	• The College is responsible for developing curriculum for and delivering all training related to the OTP and the MCTS ab initio program. • The College develops curriculum and delivers courses for other programs (e.g., MELDEV, Search and Rescue, and Environmental Response). • The College is responsible for coordinating all training delivered by the College.

For key observations with respect to operational training, see page 25.

Multiple leads: more than one directorate has lead responsibility for activities in this pillar.
No lead: no directorates have lead responsibility for activities in this pillar.
Responsible lead: one directorate has the responsibility for activities of this pillar.

23 Table of Contents | Evaluation Context | Evaluation Methodology | Evaluation Findings | Conclusions and Recommendations | Appendices

Canada

Evaluation Findings

Personnel Development Governance: Responsibility for Activities

NON-OPERATIONAL TRAINING: SUMMARY OF RESPONSIBILTIES
Policies and standards, curriculum development, delivery, identifying training needs, coordination

SCOPE OF INVOLVEMENT		ACTIVITIES
NATIONAL	Multiple leads	• Much of the non-operational training is the responsibility of DFO Human Resources or the Canada School of Public Service. • Non-operational training needs are identified within directorates. • IBMS is the lead for planning, coordinating, and tracking non-operational training for shore-based personnel through the national training and tracking tool (NTTT). • National Strategies (Diversity and Inclusion) is the lead for diversity and inclusion and gender-based analysis plus related matters, including training.
REGIONAL	Multiple leads	• For fleet, non-operational training needs are identified by the fleet training officers and clerks. • Shore-based directorates identify their own non-operational training needs. • IBMS plays a lead role in coordinating non-operational training in the regions for shore-based personnel, and in tracking/reporting on behalf of the region through the NTTT.
CCG COLLEGE	Responsible lead	• The College is responsible for coordinating any non-operational training delivered by the College (e.g., leadership, basic instructor training). • IBMS plays a lead role in coordinating non-operational training for the College.

Multiple leads: more than one directorate has lead responsibility for activities in this pillar.
No lead: no directorates have lead responsibility for activities in this pillar.
Responsible lead: one directorate has the responsibility for activities of this pillar.

For key observations with respect to non-operational training, see page 25.

Evaluation Findings

Personnel Development Governance: Responsibility for Activities

KEY OBSERVATIONS FOR OPERATIONAL AND NON-OPERATIONAL TRAINING

- There is no overall centralized, coordinated approach for operational and non-operational training (e.g., training hub or centre of expertise).
- The approach to training is reactive and ad hoc, particularly for operational training (i.e., often taken as opportunities arise, rather than being planned for).
- Tracking and reporting on training is challenging at the national level because there is no consistent system or tool to collect and link all training data for personnel.
- The level of training support provided to shore-based directorates by IBMS varies by region and directorate.
- Shore-based directorates do not have resources to support them in identifying their training needs.
- The College lacks information on operational training needs to be able to offer training outside of OTP and MCTS.
- The CCG has recently been working to develop onboarding material for fleet personnel, which will provide information to help personnel become familiar with organizational practices and vessel operations prior to going to sea.

In 2012, IBMS took over responsibility for training coordination for both shore-based and fleet directorates in the regions. In 2018, the responsibility for fleet training was moved back into regional fleet directorates, which has reportedly improved operational training in terms of the identification of training needs and coordination of training.

The findings from the "Evaluation of the Canadian Coast Guard College" (2017-18) confirmed the need for the College to take on a more prominent role as the centre of expertise in CCG training. In addressing the recommendation for a stronger governance model of the College the CCG has established a Board of Governors, with senior-level regional representation. The College's Strategic Plan is expected to be a step forward in establishing strategic direction to operational training for the entire CCG.

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Evaluation Findings

Personnel Development Governance: Responsibility for Activities

CAREER MANAGEMENT: SUMMARY OF RESPONSIBILTIES
Policy, career advancement, forward-thinking planning

SCOPE OF INVOLVEMENT		ACTIVITIES
NATIONAL	No lead	• There is no national lead for policy on career development. • IBMS applies the federal policy framework and coordinates within NHQ and with the regions. • Directorates are responsible for the career development of their own personnel. • Some elements of forward thinking and succession planning are included in the CCG business plan.
REGIONAL	No lead	• Directorates are responsible for the career development of their own personnel. • Fleet is responsible for the scholarship policy.
CCG COLLEGE	No lead	• The College is responsible for the career development of its own personnel.

Multiple leads: more than one directorate has lead responsibility for activities in this pillar.
No lead: no directorates have lead responsibility for activities in this pillar.
Responsible lead: one directorate has the responsibility for activities of this pillar.

KEY OBSERVATIONS FOR CAREER MANAGEMENT

• Coordination for career management occurs ad hoc, informally, and for the most part, at the regional level.
• The performance management process and individual learning plans seem to be the primary mechanism to manage career progression for an individual employee.
• Through the Force Generation Project, competency profiles are currently being developed for all operational positions within the CCG.

The lack of a career development tools was a finding of the "Evaluation in Support of the CCG's Seafarers Establishment" (March 2018). The management action plan for this evaluation included the development and implementation of a national career development program by September 2019.

Canada

Evaluation Findings

Personnel Development Governance: Responsibility for Activities

WELLNESS: SUMMARY OF RESPONSIBILTIES

Promoting wellness, diversity and inclusion, retention

SCOPE OF INVOLVEMENT		ACTIVITIES
NATIONAL	Multiple leads	• Some wellness activities are led by DFO. • IBMS has a lead role for wellness. • Some directorates work on specific projects related to wellness (e.g., fatigue management, healthy factors for workplace). • The Diversity and Inclusion team is responsible for providing strategic leadership and policy and research capacity for diversity and inclusion and ensures their consideration in CCG policies, program and initiatives. • There is no national coordinated approach for retention.
REGIONAL	Responsible lead for recognition/ No lead for other activities	• IBMS has the responsibility for administering regional awards and recognition, coordination of wellness activities, and critical incident stress management training. • Directorates promote national wellness initiatives to their personnel. • Some directorates have undertaken directorate-specific wellness initiatives.
CCG COLLEGE	Responsible lead	• The College follows the national direction for wellness and diversity and inclusion. • A wellness approach for cadets was developed and implemented by the College.

KEY OBSERVATIONS FOR WELLNESS

• There are a number of initiatives related to wellness that are organized at different levels (e.g., federally, departmentally (DFO), organizationally (CCG), and regionally).

• Directorates promote wellness activities to their own staff, but often lack the time to participate in wellness-related activities.

• Responsibilities related to retention are limited within a specific directorate or section.

Multiple leads: more than one directorate has lead responsibility for activities in this pillar.
No lead: no directorates have lead responsibility for activities in this pillar.
Responsible lead: one directorate has the responsibility for activities of this pillar.

Canada

Evaluation Findings

Personnel Development Governance: Mechanisms for Coordination and Information Sharing

Finding: Coordination and information sharing with respect to personnel development activities is limited. As a result, roles and responsibilities for these activities are not clear and there is limited knowledge of the various activities being undertaken to support the development of personnel.

MECHANISMS IN PLACE TO COORDINATE PERSONNEL DEVELOPMENT ACTIVITIES

The evaluation aimed to assess what mechanisms were in place to coordinate and share information related to personnel development activities. As already noted, the responsibility for many of these activities is divided amongst directorates and there is no clear focal point for these activities.

There are a number of committees within the existing CCG governance structure (e.g., National Program Management Committee, Regional Management Boards, Operations Executive Board) that provide an opportunity for coordination and information sharing with respect to personnel development. Interviewees did not identify any of these committees as having the overall responsibility for any aspects of, or decisions with respect to, personnel development. In addition, interviewees indicated that the roles and responsibilities for personnel development activities across the organization are not clear, including in particular, those of IBMS and the Force Generation Project.

As a result, there is little knowledge across the organization on what initiatives, activities, or tools are being developed and implemented to support personnel development.

Information gathered for the evaluation showed that the objectives and roles and responsibilities for the Force Generation Project are not clear, particularly in the regions. There is also a perception that there has been limited consultation with respect to products being developed and uncertainty on whether they will fill the current information gaps with respect to personnel development.

Conclusions and Recommendations

CREWING FACTOR METHODOLOGY

The findings from the *Evaluation to Support the CCG's Seafarers Establishment* indicated that the CCG's current crewing factor does not reflect all of the elements that are considered to be important and it was recommended that the CCG review and modify its crewing factor. The calculation of a new crewing factor for the CCG will require a number of steps. One of the objectives of this evaluation was to provide information to assist the CCG with the first step in advancing the development of a new crewing factor for seagoing personnel by developing an updated crewing factor methodology.

> **Recommendation**: The CCG should develop an updated crewing factor using the methodology established through the evaluation.

CERTIFICATION AND TRAINING DATA

The availability of high quality, reliable data is important to ensure that training needs are identified and well-coordinated. The training and certification modules in MariTime are not used by regional personnel, as the data are inaccurate and do not provide the information needed to determine certification and training needs. CCG regions are using their own methods to track and analyze training and certification information. Thus, nationally consistent data are not available, leaving a critical gap in information with respect to training and certification needs.

> **Recommendation**: The CCG should improve the quality and reliability of certification and training data to ensure that nationally consistent data are available for decision-making.

MODERNIZING / ENHANCING TRAINING APPROACHES

The findings from the *Evaluation of the Canadian Coast Guard College* showed the importance of strengthening the role of the College as the Centre of Expertise for marine training. To date, some progress has been made to address the recommendations. Findings from the current evaluation indicate that there is an immediate need to increase the scope and the availability of training. Furthermore, factors such as the physical capacity and geographic location of the College, and the nature of operational and crewing schedules, suggest there is a need to explore new training approaches.

> **Recommendation**: The CCG should modernize its training approaches (e.g., online or distance courses, delivery of courses by instructors in the regions, formal partnerships with marine institutions across the country) to expand access to training opportunities for CCG personnel.

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Conclusions and Recommendations

PERSONNEL DEVELOPMENT GOVERNANCE

The evidence presented in the *Evaluation to Support the CCG's Seafarers Establishment* supported the conclusion that the CCG is experiencing personnel shortages and lacked a formal career development program. That evaluation included a recommendation that the CCG develop and implement a national recruitment strategy and a formal career development program.

Findings from the current evaluation indicate that personnel shortages, lack of resources and coordination for recruitment, and the lack of support for career development are challenges that still persist. Furthermore, there is a need to improve national coordination and information sharing and to clarify roles and responsibilities for personnel development across CCG , particularly in the areas of recruitment, operational training, and career management. Challenges with respect to coordination and the understanding of roles and responsibilities has had an impact on the CCG's ability to make progress in implementing the management action plan from the previous evaluation.

Recommendation: The CCG should clarify the governance structure for personnel development activities, particularly with respect to recruitment, operational training, and career development; and ensure that the national and regional accountabilities, mandates, and roles and responsibilities for these activities are clearly defined and communicated.

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Appendices

Appendix A: Evaluation Questions

The evaluation explored three evaluation issues and five evaluation questions. The scope for the crewing factor methodology and the certification requirements was restricted to the seagoing and shore-based personnel in fleet. These two issues cannot be expanded to include the shore-based personnel in other CCG areas until the work to address three of the recommendation of the 2017-2018 evaluation in support of CCG seafarers establishment is finalized.[9] The scope of personnel development governance was explored for both fleet and seagoing personnel.

Evaluation Issue	Evaluation Question
1.0 Methodology for Crewing Factor	1.1 What are the key factors that the CCG needs to include in the methodology for calculating its crewing factor?
2.0 Certification Requirements	2.1 What are the current gaps in certification for CCG fleet personnel? To the extent possible GBA+ analysis will be applied to the assessment of gaps in certification, including an examination of identify factors related to geographic location, age, and gender.[10]
	2.2 What impact will the new Marine Personnel Regulations have on the CCG's current certification regime? The ability to complete this analysis will be depending on the timeframe for the publishing of the regulations.[11]
	2.3 Are there feasible options to address certification/training gaps and related impacts?
3.0 Governance of Personnel Development	3.1 What areas within the CCG currently have mandates and/or responsibilities for workforce-related issues, including recruitment and retention, training and development, diversity and inclusion, and wellness?

[9] Findings of the 2017-2018 evaluation suggested the need to further clarify which shore-based positions are considered operational, what certification requirements apply to these positions, and whether a crewing factor is needed for any of these positions.

[10] It was not possible to conduct a GBA+ analysis to examine the suggested identity factors due to limitations related to the quality and consistency of the administrative data on certifications.

[11] The impact of the new Marine Personnel Regulations could not be examined, because the finalization of the Marine Personnel Regulations by Transport Canada has been delayed to the Spring of 2019.

Appendix B: Management Action Plan

RECOMMENDATION 1
Recommendation 1: The CCG should develop an updated crewing factor using the methodology established through the evaluation. **Rationale**: The findings from the Evaluation to Support the CCG's Seafarers Establishment indicated that the CCG's current crewing factor does not reflect all of the elements that are considered to be important and it was recommended that the CCG review and modify its crewing factor. The calculation of a new crewing factor for the CCG will require a number of steps. One of the objectives of this evaluation was to provide information to assist the CCG with the first step in advancing the development of a new crewing factor for seagoing personnel by developing an updated crewing factor methodology.

STRATEGY
Coast Guard will gather historic and projected data related to the elements identified to be included in the crewing factor calculation. Coast Guard will then run data simulations to determine options for the crewing factor and its use in organizational planning.

MANAGEMENT ACTIONS	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	OUTPUT
CCG will validate crewing profile ensuring principles are applied consistently across classes of vessels (work schedule, # of watches, etc.)	Aug 2019		Clear communication package to regions on the application of crewing principles.
CCG will determine, using historical information as well as projections, the weight to be attributed to each of the identified elements in determining the crewing factor	Feb 2021 (has to follow the data scrub in #2)		Data sets to be used in analysis
CCG will run data simulations based on above data to demonstrate, document and determine options for crewing factor	Aug 2021		Options and recommendations for the application of a crewing factor based on demonstrable data.

Appendix B: Management Action Plan

RECOMMENDATION 2			
Recommendation 2: The CCG should improve the quality and reliability of certification and training data to ensure that nationally consistent data are available for decision-making. **Rationale**: The availability of high quality, reliable data is important to ensure that training needs are identified and well-coordinated. The training and certification modules in MariTime are not used by regional personnel, as the data are inaccurate and do not provide the information needed to determine certification and training needs. CCG regions are using their own methods to track and analyze training and certification information. Thus, nationally consistent data are not available, leaving a critical gap in information with respect to training and certification needs.			
STRATEGY			
The Coast Guard will review the data points that inform decisions, the source of the data points, improve the quality of the data and consider options for future improvements and consolidation of training and certification data for all CCG employees.			
MANAGEMENT ACTIONS	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	OUTPUT
The Coast Guard College will continue to build and implement the Student Information System (SIS)			A reliable system that tracks all training and certification delivered by the College
Coast Guard will perform a data scrub/quality audit of the current maritime system	March 2020		Quality of data currently in MariTime is improved
Coast Guard will provide instructions for standardized entry of certification and training data into MariTime	Oct 2019		Quality and reliability of data is improved

34   Table of Contents   Evaluation Context   Evaluation Methodology   Evaluation Findings   Conclusions and Recommendations   Appendices

Canada

Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Appendix B: Management Action Plan

RECOMMENDATION 3
Recommendation 3: The CCG should modernize its training approaches (e.g., online or distance courses, delivery of courses by instructors in the regions, formal partnerships with marine institutions across the country) to expand access to training opportunities for CCG personnel. **Rationale**: The findings from the Evaluation of the Canadian Coast Guard College showed the importance of strengthening the role of the College as the Centre of Expertise for marine training. To date, some progress has been made to address the recommendations. Findings from the current evaluation indicate that there is an immediate need to increase the scope and the availability of training. Furthermore, factors such as the physical capacity and geographic location of the College, and the nature of operational and crewing schedules, suggest there is a need to explore new training approaches.

STRATEGY
The Coast Guard will assess the various training delivery methods available vs our delivery requirements and capacity to deliver, assess the infrastructure required to support recommended options and put in a place a plan to implement modern training approaches.

MANAGEMENT ACTIONS	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	OUTPUT
The Coast Guard will conduct an assessment of the various training delivery methods that would meet the needs of the organization.	March 2020		
The Coast Guard will develop costed options and recommendations to be tabled at CCG Management Board	March 2021		Recommendations as to which training delivery methods for which purpose the Coast Guard should pursue development and/or acquisition.

35 | Table of Contents | Evaluation Context | Evaluation Methodology | Evaluation Findings | Conclusions and Recommendations | Appendices

Canada

Appendix B: Management Action Plan

RECOMMENDATION 4
Recommendation 4: The CCG should clarify the governance structure for personnel development activities, particularly with respect to recruitment, operational training, and career development; and ensure that the national and regional accountabilities, mandates, and roles and responsibilities for these activities are clearly defined and communicated. **Rationale**: The evidence presented in the Evaluation to Support the CCG's Seafarers Establishment supported the conclusion that the CCG is experiencing personnel shortages and lacked a formal career development program. That evaluation included a recommendation that the CCG develop and implement a national recruitment strategy and a formal career development program. Findings from the current evaluation indicate that personnel shortages, lack of resources and coordination for recruitment, and the lack of support for career development are challenges that still persist. Furthermore, there is a need to improve national coordination and information sharing, and to better clarify roles and responsibilities for personnel development across CCG, particularly in the areas of recruitment, operational training, and career management. Challenges with respect to coordination and the understanding of roles and responsibilities have had an impact on the CCG's ability to make progress on implementing the management action plan from the previous evaluation.

STRATEGY
The Coast Guard review its internal governance structure, identify gaps and overlaps in roles and responsibilities related to personnel development, recruitment, operational training and career development, The Coast Guard will then improve its governance structure ensuring clear communications on accountabilities, roles and responsibilities, processes and procedures both internally and externally.

MANAGEMENT ACTIONS	DUE DATE (BY END OF MONTH)	STATUS UPDATE: COMPLETED / ON TARGET / REASON FOR CHANGE IN DUE DATE	OUTPUT
The Coast Guard will complete the exercise of identifying all the key functions related to recruitment, retention, operational training, and career development as well as the gaps and overlaps in delivery.	June 2019		An updated, inclusive matrix of key functions with current leads and participants
The Coast Guard will develop options for governance structure with clear roles, responsibilities and accountabilities ensuring the gaps and overlaps are addresses	Oct 2019		Detailed options with recommendations on way forward.