

CCGA Crew level standards

This document provides the trainer and the candidates for the CCGA crew level with some basic descriptions of the knowledge and skills needed to perform the role of crew on board an Canadian Coast Guard Auxiliary vessel.

Part One the National Training Standards for the CCGA

Ottawa developed this first set of training standards as a general guide with reference to some nationally available documents. The standards themselves are only an overview and reference to specific material. The second sets of detailed performance standards are an interim document meant to give specific detail for use by the CCGA crew and trainers.

1.1 National Standards General.

The importance of the Canadian Coast Guard Auxiliary (CCGA) to Search and Rescue (SAR) Operations and Prevention has generated the need for a common approach and universally agreed professional training standards for the various roles of the CCGA member. The successful delivery of CCGA services depends upon competent and experienced people to discharge the various responsibilities of the CCGA.

The recruitment, selection and training of CCGA members is a pre-requisite to the provision of professionally qualified personnel capable of contributing to safe and efficient maritime operations. This will help to ensure that full and due regard are given to the diverse tasks inherent in CCGA and that relations between the CCGA and the Canadian Coast Guard (CCG) are stable and defined.

This Standard sets out the **minimum training requirements** and certification standards for CCGA members however, the standard is written in such a manner that other aspects of SAR and Environmental Response can be included. These may be implemented jointly by CCGA/CCG.

2.1 Mandate

As indicated in the National Guidelines Respecting Canadian Coast Guard Auxiliary Activities, the common National SAR objective is:

“The prevention of loss of life and/or injury at sea, including, where possible and directly related thereto, reasonable efforts to minimise damage to or loss of property”

To this end, members of the CCGA volunteer their services and agree to assist the CCGA and Coast Guard in meeting this objective through SAR Operations and Prevention activities without profit or personal gain.

2.2 Principles

In order to fulfil the roles associated with the indicated tasks of the CCGA, CCGA members should obtain the qualifications for each role as indicated before being considered competent to perform the duties required by that role. These minimum qualifications may be obtained through training, or as demonstrated through the endorsement of previous learning and experience. In order to maintain some qualifications there may be a requirement for revalidation training as indicated in this standard or by a specific training program.

CCGA qualifications shall be awarded following the completion of training programmes that relate to this standard, and should be noted in the CCGA Training Log. Training

should include a demonstration of skills in order to assess fully the competence of the auxiliariast. Training and experience received outside of the CCGA organisation that relates to this standard should be verified against this standard and accepted or amended as appropriate.

2.3 Objectives

The objectives of this Standard are to:

- 1 provide a basis for training on the specific knowledge and skill requirements necessary for qualification in the various roles as a CCGA member;
- 2 maintain an effective and professional level of operational performance through the systematic provision of refresher and/or advancement training for qualified members;
- 3 provide the CCGA with guidelines for recruiting potential CCGA members;
- 4 ensure that personnel are qualified to fulfil the various roles of the CCGA;
- 5 assess CCGA members' ability to perform to established and recognised standards;
- 6 support, as far as is practicable, the consistent application of standard operating procedures by CCGA;
- 7 foster professionalism and pride in the CCGA;
- 8 foster a strong partnership between CCGA and CCG;
- 9 Provide the basis for future development of training for all aspects of Maritime Search and Rescue Operations and Prevention.

Annex 1 – Role Description for CCGA Operational Functions

CCGA Operations - Crewmember

1 Introduction

The role description set out in this annex is intended to provide a broad guide to the tasks expected to be undertaken by CCGA crewmembers. CCGA are encouraged to develop detailed role descriptions for all CCGA roles, based on the services to be provided.

2 Role

To perform the duties of crewmember on CCGA vessels; providing expertise and support to the owner/operator of the SRU and the CCGA in all aspects of CCGA authorised activities.

3. Activities and tasks

- ?? *Operate and maintain equipment for internal and external communications during all stages of SAR response. (awareness, initial action, planning, operations, conclusion)¹;*
- ?? *Maintain publications, regulations and documentation relevant to the operations of the CCGA SRU;*
- ?? *Perform functions as required to maintain SAR Readiness of SRU, including maintenance, seamanship, chartwork, etc.;*
- ?? *Assist CCGA Operator during Search Operations through the use of appropriate techniques (i.e. spotter);*
- ?? *Participate in Rescue Operations through recovery operations, emergency care, evacuation and helo operations;*
- ?? *Maintain an attitude of awareness and professionalism in all activities as a representative of the CCGA and the CCG;*
- ?? *Take responsibility for personal Training and Development.*
- ?? *Prepare, as required, written statements to comply with legal requirements for and/or court appearances;*
- ?? *Undertake activities within the CCGA as required.*

4. Knowledge, skills, experience, desired characteristics

Persons undertaking the role of CCGA Crewmember must be in possession of the level of certification required for the vessel on which they serve.

Desired personal characteristics for SAR personnel include Persistence; Dedication to SAR; Empathy; Integrity; Honesty; Ability to work as an integral member of a team; Experience during authorised activities.

Competence Chart Standard (level) Reference

This table provides clarification for the Standard (level) of competence required - column 4 of the Tables.

<i>General</i>	<i>Attitude and/or Knowledge</i>	<i>Skill</i>
<p><u>Level 1</u> Work of a routine and predictable nature generally requiring supervision</p>	<p><u>Comprehension.</u> Understands facts and principles; interprets verbal/written material; interprets charts, graphs and illustrations; estimates future consequences implied in data; justifies methods and procedures</p>	<p><u>Guided response.</u> The early stages in learning a complex skill and includes imitation by repeating a demonstrated action using a multi-response approach (trial and error method) to identify an appropriate response.</p>
<p><u>Level 2</u> More demanding range of work involving greater individual responsibility. Some complex/non-routine activities</p>	<p><u>Application.</u> Applies concepts and principles to new situations; applies laws and theories to practical situations; demonstrates correct usage of methods or procedures.</p>	<p><u>Autonomous response.</u> The learned responses have become habitual and the movement is performed with confidence and proficiency.</p>
<p><u>Level 3</u> Skilled work involving a broad range of work activities. Mostly complex and non-routine</p>	<p><u>Analysis.</u> Recognises un-stated assumptions; recognises logical inconsistencies in reasoning; distinguishes between facts and inferences; evaluates the relevancy of data; analyses the organisational structure of work.</p>	<p><u>Complex overt response.</u> The skilful performance of acts that involve complex movement patterns. Proficiency is demonstrated by quick, smooth, accurate performance. The accomplishment of acts at this level includes a highly co-ordinated automatic performance</p>
<p><u>Level 4</u> Work that is often complex, technical and professional with a substantial degree of personal responsibility and autonomy</p>	<p><u>Synthesis.</u> Integrates learning from different areas into a plan for solving a problem; formulates a new scheme for classifying objects or events.</p>	<p><u>Adaptation.</u> Skills are so well developed that individuals can modify movement patterns to fit special requirements or to meet a problem situation.</p>
<p><u>Level 5</u> Complex techniques across wide and often unpredicted variety of contexts. Professional/senior managerial work</p>	<p><u>Evaluation.</u> Judges the adequacy with which conclusions are supported by data; judges the value of a work by use of internal criteria; judges the value of a work by use of external standards of excellence.</p>	<p><u>Creation.</u> The creation of new practices or procedures to fit a particular situation or specific problem and emphasises creativity based upon highly developed skills.</p>

Table 1- Competence chart for CCGA Crewmember

1. Function - Communications

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Communications Hardware	Telephone pager	Given equipment and relevant operating manuals.	Operate equipment in accordance with manufacturer's instructions. (Level 2)
	Radiotelephone	Given equipment, relevant operating manuals and regulations.	Successfully complete Industry Canada RROC (Level 3)
Communications Concepts	Internal (on board/with crew) External (with outside agencies, other vessels, etc.)	In accordance with IAMSAR Vol. III, Section 3 (i.e. 3-6 to 3-7)	Demonstrate use of communications concepts with reference to all aspects of CCGA activities. (Level 2)
	Sail Plan Components of Filing/closing	Given sail plan and applicable references (i.e. current version of CCG Safe Boating Guide ISBN 0-662-83399-6)	Explain importance of filing a sail plan. (Level 1)
	Verbal Briefing and Debriefing Questioning Techniques	In accordance with IAMSAR Volume III standards (i.e. 2-37)	Demonstrate use of verbal communications concepts in all aspects of CCGA activities (Level 2)
	Non-verbal Hand signalling	In accordance with standard operating procedures and IAMSAR Vol. III, Section 2 (2-10)	Use identified means of non-verbal communications (Level 2)
CISM/Early Conflict Resolution	Recognise in Self or others Participate in management	In accordance with CISF standards (Level 1)	Identify signs of/resources for dealing with Critical Incident Stress

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Distress or Urgent Call	Acknowledge Call Gather Information Organise Information Send Info to SMC (sitreps)	In accordance with RIC 23 (Radio Information Circular) and IAMSAR Vol. III, section 2 (i.e. 2-57)	Respond to a distress or urgency call (Level 2)

2. Function – SAR Administration

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Acronyms and initialisms	Use applicable acronyms and initialisms Develop familiarity with acronyms	In accordance with IAMSAR, ITU and other relevant publications	Expand selected SAR related acronyms and initialisms (Level 1)
Objectives of CCGA	SAR response Prevention	With reference to CCGA National Guidelines, regional guidelines and by-laws	Explain the objectives of the CCGA (Level 1)
SAR Publications	Maintain Publications	Given applicable publications and amendments, in accordance with standard operating procedures	Maintain publications (Level 1)
Bylaws and policies applicable to CCGA Members	Towing Reimbursement Insurance CCGA Bylaws National Guidelines Respecting CCGA activities Liaison with other SAR organisations Legal obligations	With reference to CCGA National and Regional Guidelines and by-laws.	Explain the Bylaws and Policies applicable to CCGA members. (Level 1)
Record Keeping	Communications Log Incident Log Check lists	Given appropriate logs/forms/checklists, In accordance with RIC 23 (Radio Information Circular) and CCGA National Guidelines (3.9)	Maintain required records. (Level 2)

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
SITREPs	Content Format	In accordance with IAMSAR Vol. III, Section 3 (i.e. 3-7) NSAR, CCGA National Guidelines (3.8) and standard operating procedures	Provide complete and timely sitreps (Level 1)

3. Function – SAR Readiness

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Conduct of SRU	Familiarisation with SRU Maintenance of SRU Safety inspections Readiness Inspection Routine maintenance Tools/spares	<i>In accordance with regulatory and regional requirements, standard operating procedures and using applicable ‘check lists’</i> <i>In accordance with the practice of good seamanship</i>	<i>Modify/repair/maintain equipment as required to ensure SRU remains operational</i> (Level 4)
Navigation	Lookout Helm orders/steering skills	<i>In accordance with IAMSAR Vol. III, section 2 (i.e. 2-14, 2-57) and the practice of good seamanship</i>	<i>Perform duties of lookout</i> <i>Respond to Helm orders</i> (Level 3)
	Equipment – visual (i.e. binoculars, NVGs, searchlights)	<i>In accordance with Operational Guidelines for Search and Rescue Units (Type 100 and 300) TP 11637 and IAMSAR Vol. III</i> <i>Given operational equipment.</i>	<i>Demonstrate use of and analyse input received from the use of binoculars, NVG’s and searchlights.</i> (Level 3)
	Electronic equipment on Mobile Facility/SRU	<i>In accordance with manufacturer’s instructions</i>	<i>Operate electronic equipment fitted on the SRU</i> (Level 1)

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Navigation	Chartwork – chart instruments; chart information; buoyage system; compass; relevant nautical publications	<i>Given applicable navigation equipment and publications</i>	<i>Describe the use of chartwork in CCGA activities</i> <i>Perform chartwork during CCGA activities</i> (Level 3)
Acts and Regulations	CSA Collision Regulations	<i>In accordance with applicable acts and regulations</i>	<i>Summarise the elements of the acts and regulations governing SAR and CCGA operations</i> (Level 1)
Risk Assessment	Limitations of self Limitations of Mobile Facility/SRU	In accordance with standard operating procedures and the practice of good seamanship	Recognise individual limitations and limitations of Mobile Facility/SRU (Level 2)
Seamanship	Care, handling and storage of lines Inspection of lines Line throwing, heaving lines Docking/undocking - mooring lines, fenders Knots/hitches/bends Securing for adverse weather Towing Operations	In accordance with standard operating procedures and the practice of good seamanship. Given a piece of line	Integrate aspects of line handling into CCGA activities (Level 4) Demonstrate selected knots and hitches Select the most suitable knot and/or hitch for specified aspects of CCGA activities (i.e. securing, towing, transferring lines) (Level 3)
	Deck equipment operations as applicable to Mobile Facility/SRU.	In accordance with manufacturers' instructions	Operate deck equipment as fitted on SRU (Level 3)
<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>

<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Seamanship	Refuelling Methods Precautions	In accordance with applicable regulations, the Small Vessel Regulations (SVR) and the Small Fishing Vessel Regulations (SFVR)	Demonstrate procedures for refuelling (Level 2)
Personal Safety	Protective equipment Fatigue Safety practices	With reference to applicable codes (i.e. the Canadian Labour code, Occupational Health and Safety Regulations, Safe Manning Regulations, etc.) NSAR and standard operating procedures	Integrate aspects of personal safety into CCGA activities. (Level 4)

4. Function – Search Operations

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Search Spotter Techniques	Personal motivation Night vision acclimatisation Scanning techniques Communication of sighting fatigue	In accordance with IAMSAR vol. III, Appendix C	Integrate search spotter techniques into CCGA activities. (Level 4)
Search Plan	Vessel Characteristics Visual Search Electronic Search	In accordance with IAMSAR Vol. III, Section 2 (i.e. 2-9) and Standard Operating Procedures	Implement search action plan. (Level 2)

5. Function – Rescue Operations

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Rescue Planning	Mobile Facility equipment On-scene communications	In accordance with IAMSAR Vol. III, Section 3 (i.e. 3-6 to 3-14) and standard operating procedures	Explain how equipment and communications can impact on rescue planning. (Level 1)

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
<i>Competence</i>	<i>Knowledge, skills and/or attitudes</i>	<i>Reference for demonstrating competence (condition)</i>	<i>Level of competence required (standard)</i>
Initiate and Conduct Rescue	Recovery Persons in water From life rafts/survival craft From other vessel/ditched aircraft/fixed structures	In accordance with IAMSAR Vol. III, section 2 (i.e. 2-30) and Operational Guidelines for Search and Rescue Units (Type 100 and 300) TP 11637	Adapt techniques for recovery of persons according to situations presented. (Level 4)
	Boarding	In accordance with IAMSAR Vol. III, section 2 (i.e. 2-30) and Type 100/300 Operational Guidelines	Identify conditions under which boarding can be carried out. Demonstrate procedures with respect to boarding. (Level 3)
	Helo-Ops Safety Hoisting	In accordance with IAMSAR vol. III, section 2 (i.e. 2-35), (2-29, 2-30)	Explain safety and SAR aspects of helo-ops (Level 2)
Towing	Inspect gear/fittings Prepare gear Precautions	With reference to Operational Guidelines for Search and Rescue Units (Type 100 and 300) TP 11637 (sections 4 and 5), CCGA national guidelines, SAR Skills Training Standard (TP9224) and standard operating procedures	State precautions when dealing with tow gear. Demonstrate towing procedures (Level 3)
First Aid	Equipment Skills Medivacs Universal precautions	In accordance with IAMSAR Vol. III, section 2 (i.e. 2-36, 2-55) (2-27/2-28) and standard operating procedures	Integrate aspects of first aid in CCGA activities (Level 4)

Part Two Detailed Performance Standards Tools for Training and Evaluation

Competency based training is a shift in emphasis or focus from the teaching and teaching activity to the learning and the facilitated performance of the terminal behaviour. The candidate and the trainer will use the standard as well as the knowledge necessary for the successful performance of the behaviour for a foundation to training delivery.

A performance standard must be useful in the delivery of the training. It should be legible to the candidate and be a familiar tool for the instructors and the evaluators. In order to do this it has to have a certain amount of detail and direction? If the standard sheet is simply a list of references with a task heading the instructor and evaluator is not left with any direction on how to deliver the training.

Balancing a Standard: The standard must be balanced between specific detail and uniformity. The CGA crew level standard must apply to all crew on board Auxiliary vessels ranging from 100-ton seine boats to five-metre Rigid Hull Inflatables. If the standard is too general then it loses its usefulness as a training aid. If the standard is too detailed then it becomes obsolete quickly and loses its currency.

To keep a standard well balanced one must avoid including any references to specific equipment or operations that steps are vessel specific.

For example a **man overboard recovery drill** on board on a large vessel will include different steps then with a small boat, but some steps are universal.

?? A standard that reads: (**Recover Person from Water** –in accordance with reference 112.5 subsection 2 and local or vessel specific procedures). This is too general and leaves the trainer with out direction on how to train or evaluate. The chances are those references will not be immediately available when required.

?? If the standard reads: (Man Over board Vessel Manoeuvring)

1. Look in the direction that the spotter is pointing
2. Turn to port side wheel hard over
3. Bring throttles back to half etc....

This standard is too specific to certain vessel in certain conditions and it will not be useful tool for any but that specific vessel type operator.

Example of a balanced standard with universal steps and components familiar and useful to all

Recover Person from Water

Driving the vessel skills section

Given a familiar CCGA vessel and an object in the water to represent a Crew having fallen overboard, Each candidate shall complete the following steps:

- ~~1.~~ Turn using best method for returning to original track
- ~~2.~~ Get the vessel downwind/ down current or down swell with bow into dominant conditions at a fair distance from the person in the water

- ✍ Stop Assess Plan
- ✍ Approach slowly without hitting the person in the water
- ✍ Arrange vessel or stop propellers as to eliminate danger to the victim from stern
- ✍ Bring the vessel to a halt within reaching distance to the object/person in the water

The Competency Based Standard System

Function: Overall role of the crew member or team members. A function includes many competencies examples of functions are towing Or Communications:

Competency: This includes Knowledge and Skill Standard and the conditions for evaluation of that knowledge and skill Standard

Measures: Are combinations of subjective and objective terms used to determine the competency of the performance. Words like effective and safely are dependent on the evaluator’s judgement. Time limits, distance measurements, test scores, are not

Conditions: guidelines for the set up of evaluation to the standard. They may be directions to the evaluator on how to best promote successful demonstration.

The Evaluation System

The evaluation system is based on the principles of positive, constructive and accountable actions by evaluators regarding the standards and the candidates. An evaluator must make all expectations clear as well as give the candidate access to the standards material and the evaluation method, criteria and measure. The evaluator can only withhold the specifics of exam questions and/or choice of elective skill demonstrations prior to an evaluation.

The table of standards is designed with the trainer and evaluator in mind. It allows one to determine exactly what is expected of the CGA crewmembers during the regular performance of his/her duties. The bottom line is simple, if a person can perform the skills and knowledge given the described conditions then they meet the criteria for the level. This can make a trainer’s job easy or difficult.

Functions and Tasks	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Main Function List of competencies	Main knowledge points for all competencies	Main skill components	General evaluation criteria Exam or questioning during scenario	All Required skills and at least two electives
Competency 1				Required
				Elective

Abbreviations for the Performance Standards

A	
A/C	Aircraft
ACV	Air Cushion Vehicle
AES	Atmospheric Environment Service
AM	Amplitude Modulation
ASAP	As Soon As Possible
ATS	Air Traffic Services
B	
B/D	Broken Down
BCAS	British Columbia Ambulance Service
C	
C	Civilian Incident Classification
C/A	Commercial Assistance
CAS	Coordination of Air Search
CASARA	Civil Air Search and Rescue Association
CB	Citizen's Band
C/C	Concerned Citizen
CF	Canadian Forces
CFB	Canadian Forces Base
CG	Coast Guard
CGA	Coast Guard Auxiliary
CGRS	Coast Guard Radio Station (<i>see also MCTS</i>)
CO	Commanding Officer
C/S	Call Sign
CSP	Commence Search Point
CRP	Casualty Reception Point
CSA	Canada Shipping Act
CSS	Co-ordinator of Surface Search
D	
DF	Direction Finding
DFO	Department of Fisheries and Oceans

DMB	Datum Marker Buoy
DND	Department of National Defence
E	
ELT	Electronic Locator Transmitter
EPIB	Emergency Position Indicating Buoy
EPIRB	Emergency Position Indicating Radio Beacon
ETA	Estimated Time of Arrival
F	
F/G	Fibreglass (vessel)
FM	Frequency Modulation
FRC	Fast Rescue Craft
F/V	Fishing Vessel
G	
GMB	General Marine Broadcast
H	
H	Humanitarian Incident Classification
HF	High Frequency
I	
I/B	Inboard
I/O	Inboard/Outboard
IRB	Inshore Rescue Boat
J / K	
kHz	Kilohertz

L	
LKP	Last Known Position
LUT	Local User Terminal (SARSAT)
M	
M	Marine Incident Classification
MCTS	Marine Communication and Traffic Services
MEDEVAC	Medical Evacuation

MIB	Marine Information Broadcast
MF	Medium Frequency
MHz	Megahertz
MOB	Man Overboard
M/V	Motor Vessel (commercial)
N	
NM	Nautical Miles
O	
O/B	Outboard
O/D	Overdue
OIC	Officer-in-Charge
OSC	On-Scene Commander
P	
P/C	Pleasure Craft
PLB	Personal Locator Beacon
POB	Persons-on-Board
Q / R	
R/S	Rescue Specialist (Coast Guard)
RCC	Rescue Coordination Centre
RCMP	Royal Canadian Mounted Police
RDF	Radio Direction Finder
RHI	Rigid Hull Inflatable
RHIOT	Rigid Hull Inflatable Operator Training
RSMS	Regional Supervisor of Marine Search and Rescue
S	
SAR	Search and Rescue
SAR TECH	Search and Rescue Technician (Canadian Forces)
SITREPs	Situation Reports
SQN	Squadron
SRU	Search and Rescue Unit
SRR	Search and Rescue Region

S/V	Sailing Vessel
T	
TS	Track Spacing (also known as S)
U	
UHF	Ultra High Frequency
USAF	United States Air Force
USCG	United States Coast Guard
USN	United States Navy

V	
VAC	Comox Coast Guard Radio
VAE	Tofino Coast Guard Radio
VAS	Vancouver Coast Guard Radio
VAJ	Prince Rupert Coast Guard Radio
VHF	Very High Frequency
V/L	Vessel
VTS	Vessel Traffic Services
W / X / Y / Z	
WX	Weather

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>Main Function The first row is the general function and the description of the competencies involved in that level of performance of that function. In the Evaluation section of the first row it will list all of specific competencies required and the number of elective competencies. Each candidate will have to have successfully completed the required competency and a specified number of electives needed for successful completion of the function. The elective competencies are in greyed and labelled elective.</p>	<p>The knowledge standard describes the topics and subtopics involved and any references to large bodies of information. If there is a substantial amount of information involved then often the paragraph or chapter headings will be listed here along with a summary description of emphasis to certain aspects of that information.</p>	<p>Here is a list and descriptions of the skills to be performed. 1. The <u>skill name</u> 2. <u>Standard</u> the overall goal of the skill with subjective and objective qualifying statements such effectively, efficiently or successfully. 3. Critical actions /steps There may be references to regulations or guides that describe a standard action or skill.</p>	<p>The knowledge statement or concept can be tested verbally, on a proficiency exam or on the final as written. Some may be tested through the successful demonstration of the skill related to the knowledge. While the candidate is demonstrating the skill the evaluator can ask questions testing the related theory.</p>	<p>Conditions, requirements and pre-requisites of for the skill are put here, The criteria for evaluation will include ?? Method of evaluation, ?? Supplied components ?? Setting, Surroundings and Weather Method Describes the evaluation process in regards to the activity. Skills can be demonstrated through scenarios, drills, questioning Setting Surroundings and Weather Condition also implies the setting of the evaluation and factors that effect degree of difficulty. For basic skills the setting must not hamper the demonstration of the skill. E.g. Demonstrated in conditions of light wind and chop, in night</p>
<p>Competency 1 The next rows are individual competencies and their steps. The table is divided two halves: In the first two columns after the competency title is the raw description of the knowledge and skill and their components or steps. The second half tells the evaluator and the candidate the Conditions ,rules and criteria for evaluation of the Skills and Knowledge</p>	<p><u>Standard</u> or quality of practice with or without reference Use terms like list, explain, compare or state the difference between two ideas or concepts E.g. Each candidate will identify the rules (collision regulations rule 18) in regards to the required actions when a power vessel meets: ?? A Fishing vessel ?? A sailing vessel</p>		<p>E.g. by consistently starting a vessel safely it implies the theory involved in the steps to starting a vessel. (Written test not necessary.) Terms for knowledge evaluation Knowledge ?? List the factors/items/actions ?? Describe the actions/Items ?? Choose the correct actions/items</p>	<p>The terms of evaluation conditions are as follows: ?? Guided (this skill may be guided or prompted by a checklist, coxswain or evaluator) ?? Consistently (more than once effectively) ?? At least once effectively ?? Participate (Active participation in activity means student must complete at least one of the divided tasks assigned by the group). Supplied Components: Are the equipment, vessel, assistants and/or written material that may be included in a fair evaluation of the skill. Some terms like familiar vessel will require that the candidate shall be evaluated on their own vessel or be given time to familiarise themselves with the test vessel. or day, and conditions of visibility.</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>2.0 Personal Safety Function</p> <p style="text-align: center;">PS</p> <ol style="list-style-type: none"> 1. Floatation 2. Warmth 3. Protection 4. Visibility & signalling 5. Cold Water Survival 6. Gear maintenance 7. Self Recovery 	<p>Each candidate shall identify required personal equipment outlines in the small vessel regulations. Each candidate shall explain the principles of heat loss prevention</p> <p>Each candidate shall identify the appropriate gear necessary to achieve:</p> <ul style="list-style-type: none"> /// Floatation /// Insulation /// Protection /// Mobility /// Visibility 	<p>Candidates shall demonstrate the personal equipment check.</p> <ol style="list-style-type: none"> 1. PFD fit and condition zipped and clipped 2. Warmth (drysuit, floater suit or weather gear) 3. Gloves and hat if cold weather 4. Protection (helmet, goggles, boots) 5. Required gear for trip 6. Emergency gear and Signalling devices <p>Each candidate shall describe the steps for cold water survival and self boarding</p> <p>Candidates shall always wear the minimum flotation gear required by CGA and Unit specific standing orders and small vessel regulations.</p>	<p>Given perspective bad weather and wet/cold conditions each candidate shall list at least 10 items of protective gear and clothing that they would bring on the CGA vessel. Each candidate shall list the primary heat loss areas and identify how their clothing and protective gear is effective in providing:</p> <ul style="list-style-type: none"> /// Floatation /// Insulation /// Protection /// Mobility /// Visibility <p>Each candidate shall state the rules regarding personal safety gear for the CGA as a whole and the standard operating procedures of the individual unit.</p>	<p>Given an on the water exercise and predicted weather conditions candidates shall consistently choose the appropriate gear for the exercise and during the other CGA missions. The five criteria are listed in the knowledge section</p>
<p>Floatation</p> <p style="text-align: center;">PS 2.1</p>	<p>Each candidate shall explain the minimum required floatation device for the CGA Crewmember. Each crewmember shall demonstrate the ability to understand the information on the PFD or life jacket and the requirements of the small vessel regulations Each Candidate shall describe the difference between a PFD and a life jacket.</p>	<p>Candidates shall always wear the minimum flotation gear required by CGA and Unit specific standing orders and small vessel regulations.</p>	<p>The candidate shall identify the information on the pfd to determine its approval and suitability</p>	<p>Candidates shall be able to perform these skills consistently over time. The course shall provide lots of opportunities to test this</p>

Tasks & references	Standard		Conditions for Evaluation	
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Warmth PS 2.2	Candidates shall list the good and bad insulation properties of materials such as: Cotton Wool Polypropylene Nylon	Candidates shall demonstrate the consistent choice of insulative clothing appropriate, for the present and predicted weather conditions on the days of training	Each candidate shall pass an exam that includes questions regarding insulation properties of different materials listed in the knowledge section.	Candidates shall demonstrate the consistent choice of protective equipment and clothing appropriate, for the present and predicted weather during the training days designated
Protection PS 2.3	Each candidate shall identify examples of protective gear that may be needed for extreme conditions, Helmet Eye wear, Boots, Gloves Drysuit	Each candidate shall demonstrate the ability to choose and wear appropriate protective gear for the weather conditions and mission demands	No knowledge demonstration necessary outside skill evaluation	Each candidate shall demonstrate the ability to choose and wear appropriate gear for the weather conditions and mission demands during the training days designated.
Visibility & Signalling PS 2.4	Each Candidate shall list items that may be used to signal a distress in the event of sudden immersion in cold water.	Each candidate shall wear orange red or yellow flotation as well as reflective and signalling devices	Each candidate shall pass an exam that includes a question regarding the identification and use of personal signalling gear	Each candidate shall demonstrate the ability to choose and wear appropriate gear for signalling for help in the event of immersion as well as general reflective visibility.

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Cold Water Survival PS 5	Each candidate shall define the terms Cold Shock and Hypothermia Each candidate will be aware of the physiological, psychological and environmental factors that effect survival times. Each candidate shall be aware of the heat loss areas: Neck, head groin and torso. Each candidate will identify the following strategies to survive cold water immersion: HELP position, huddle, reduction of movement, protection of airway	Each candidate shall take measures to prevent hypothermia and Cold shock by donning protective cloths and equipment throughout the course. 1. Wearing items such as :survival suit, Drysuit, Fleece, Coveralls, Floater Jacket) choose insulating clothing appropriate for weather 2. Bring gear in kit bag in case of weather change Demonstrate the HELP position 3. Demonstrate the Huddle position 4. Get body out of water if possible	Each candidate shall pass the written exam that shall include questions regarding hypothermia and Cold Shock and survival strategies for cold water immersion.	Each candidate will demonstrate the skill standard consistently during training periods
Maintain gear PS 6	Each candidate shall identify the following substances as enemies of safety gear 1. Wear and Damage 2. Salt 3. Grease 4. Mould 5. Mildew	Demonstrate the ability to maintain and care for the equipment and clothing. Steps 1. Rinsing the gear with water 2. Folding and stowing in a dry place 3. Washing it 4. Inspecting for damage and replacing damaged gear	Each candidate shall list at least three of the five items listed in the knowledge box. This question shall be included in the written exam or on take home exercises.	The candidate should demonstrate more than once any of the listed steps by the end of the course Take action to prevent damage to equipment and gear without prompting by the end of the course
Self Recovery PS 7	Each candidate shall identify the location of any re-boarding equipment and the best place to climb on board the vessel	Use effective means to remove self and others from the water Pull self out of water Recover another person from the water in a team or by ones self using one of the techniques demonstrated		Incidental demonstration only

Tasks & references	Standard		Conditions for Evaluation	
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<p>3.0 Vessel Safety Function</p> <ol style="list-style-type: none"> Briefing Pre-Departure Check Crew Over Board Sinking & Capsize Immersion Survival Fire Fighting Signalling a Distress Vessel Inspection System maintenance Fuelling 	<p>Each candidate shall demonstrate the knowledge required to:</p> <ol style="list-style-type: none"> Brief the passengers Inspect the vessel for mission fitness and required safety/ rescue equipment Recover a crew member Survive cold water immersion Fight a fire on-board Signal a distress Routinely Inspect and maintain the vessel Fuel the vessel 	<p>Each candidate shall successfully perform the functions and steps required for safe operation of a rescue vessel.</p> <ol style="list-style-type: none"> Vessel inspection Pre-departure check Fuelling Briefing Crew over board Sinking Immersion survival Fire fighting Signalling a distress 	<ol style="list-style-type: none"> Each candidate will pass exam questions on Safe Fuelling Procedure and Small Vessel Regulations required safety equipment. Each candidate shall identify the classes of fires and indicate the appropriate extinguishing agents Each candidate shall select the most effective strategies to prevent drowning and heat loss in the event of cold water immersion Each candidate shall list the steps to take in the event of a capsized vessel Each candidate shall list all of the methods of signalling an emergency on the vessel 	<p>Given a familiar CGA vessel each candidate shall participate in the Inspection, Pre-departure check and Fuelling. Each candidate shall perform each of the duties for a crew over board recovery operation. Each candidate shall demonstrate the ability to respond effectively to one of the following elective emergency scenarios:</p> <ul style="list-style-type: none"> ☒ Sinking ☒ Fire on board ☒ Cold water immersion (Hypothermia) ☒ Signalling distress
<p>Briefing VS 3.1</p>	<p>Each candidate shall list briefing points that will be included in a passenger brief:</p> <ol style="list-style-type: none"> Location of life jackets and flares & Fire extinguishers Hands and arms inside the craft Keep your weight low Signals and actions from the Captain/Coxswain Review MOB procedures Location of first aid kits & emergency kit & Lights 	<p>Incidental demonstration only</p>	<p>Each candidate shall list at least five general briefing points, or point's specific to their vessel. At least three of these points must be from the list in the knowledge section of this standard The effects of the motion of the craft, sunlight, waves, wind, and sound</p>	<p>Incidental demonstration only.</p> <p>Candidates shall brief new crew and passengers as to the whereabouts and use of important safety equipment as well as their roles in the event of an emergency</p>
<p>Pre-departure Check VS 3.2</p>	<p>Candidates shall list items that are included in the pre-departure check and explain the consequences of the listed equipment failing during SAR operations</p>	<p>Pre-departure check</p> <p>Candidates must participate in a pre-departure check that takes into account all relevant elements of the planned trip</p>	<p>Each candidate shall list at least five or more of the following items in a pre-departure check:</p> <ol style="list-style-type: none"> Fuel Radio Communications (Weather & Information On Board) Navigation Lights Search Lights Void Spaces Or Tanks (Doors & Deck) SAR Equipment State And Stowage Major Safety Systems (Self Righting) Electronic Navigation Systems (Powered And Tested) Engine Lines, Fittings And Propellers (Steering Test) Rigging Or Mast Works (Roll Cages) 	<p>Each candidate shall participate in one or more successful pre-departure checks identifying any shortfalls and discussing the consequences of equipment failure during SAR operations</p>

Tasks & references	Standard		Conditions for Evaluation	
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Crew Over Board VS 3.3	<p>Each candidate shall identify the steps involved in recovery operations for their vessel. If a re-boarding device is used in person recovery then the candidate shall identify the location of this device and list the steps to set it up</p>	<p>Each candidate shall perform the different roles involved in the following recovery actions.</p> <p>Recovering a crew member from the water:</p> <p>Spotting: Raising the alarm and spotter duties relaying information to the driver, using effective means</p> <p>Manoeuvring the vessel:</p> <p>Crew over board driving skills</p> <ul style="list-style-type: none"> ☞ Turn using best method for returning to original track ☞ Get the vessel downwind/ down current or down swell with bow into dominant conditions at a fair distance from the person in the water ☞ Stop Assess Plan (SAP) ☞ Approach and recover ☞ Can use life lines or life buoy to recover ☞ Will need a re-boarding device for gunwales over 0.5 of a meter 	<p>Candidates knowledge of crew overboard and person in the water recovery operations is best evaluated through competent performance of the skill.</p>	<p>Given light to moderate winds, a familiar CGA vessel and a person/ OSCAR or floating marker in the water each candidate shall successfully complete each task listed in the skill standard in sequence at least once. Emphasis shall be on verbal communication, a Stop Assess Plan followed by a slow and controlled approach</p> <p>Each candidate shall participate in the recovery of a person or reasonable facsimile (OSCAR) from the water into the vessel. If using real people, this skill is best along side the dock</p>
Sinking, Damage Control & Capsize VS 3.4	<p>Each candidate shall list items on their vessel that could be used to stop leaks.</p> <p>Each candidate shall list different methods to de-water their vessel.</p> <p>Re-righting equipped vessels (RHI):</p> <p>Each candidate shall list the steps involved in re-righting the vessel and define the roles played by the crew and the coxswain in this manoeuvre</p>	<p>Each candidate shall be able to:</p> <ol style="list-style-type: none"> 1. Assessment (quick SAP) 2. Get emergency kit 3. Use on board items to stop the water list of useful items 4. Get rid of water 	<p>Each candidate shall be able to locate all the de-watering equipment on board the SRU and describe its use.</p> <p>Each candidate shall locate and describe the safe operation of the salvage/fire pump and all fittings for de-watering</p>	<p>Elective, or incidental skill demonstrations.</p> <p>De-watering: see Rescue Competency 6</p> <p>Locate on board pumps and demonstrate their use. Locate any damage control equipment and demonstrate its use.</p> <p>This skill is only required for crew of self-righting RHI vessels.</p> <p>Given a familiar vessel equipped with re-righting gear. Each candidate shall locate and list the steps involved in capsize reversal</p>

Tasks & references	Standard		Conditions for Evaluation	
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Cold Water Immersion Survival VS 3.5	<p>Each candidate shall identify the primary heat loss areas and understand the mechanisms involved in cold water heat loss and treat casualties by:</p> <ol style="list-style-type: none"> 1. Remove from cold, provide shelter, 2. Remove/Replace wet clothing 3. Wrap in blankets 4. Place dry insulating coverings over person 5. Apply warm dry objects to head neck torso and groin 6. Do not rub or massage body, Do not give alcohol or caffeine 7. Get help 	<p>Take actions to reduce heat loss for immersion in cold water:</p> <ol style="list-style-type: none"> 1. Keep air way clear and wits together for initial immersion 2. Climb up on an object 3. Assume (HELP) position 4. Huddle together if in group 5. Protect heat loss areas by zipping up clothing <p>Each candidate shall take measures to recognise and treat fellow crewmembers stricken with hypothermia see list in knowledge section</p>	<p>Each candidate shall pass an exam that includes questions regarding the primary heat loss areas and survival strategies when immersed</p> <p>Each candidate shall pass the exam that includes questions regarding the steps to recognising and treating crewmembers stricken with hypothermia</p>	<p>Elective or incidental skill demonstrations</p> <ol style="list-style-type: none"> 1. Given a patient and suitably stable surroundings, each candidate shall participate in the treatment of a crewmember stricken with hypothermia following at least four of the listed steps in the knowledge section 2. Given some thermal insulation and protective equipment with calm shallow water each candidate while immersed can practice the HELP position, putting on and taking off their PFDs, treading water and recovering a wet crewmember from the water
Fire On board VS 3.6	<p>Fire theory: Identify the class of a fire and the best type of extinguishing agent to use against it</p>	<p>Each candidate must participate in the control and handling of a fire on board:</p> <ol style="list-style-type: none"> 1. Jettison fuel if possible 2. Ready fire extinguisher 3. Point at base of flames 4. Use a progressive sweeping motion 	<p>Each candidate shall pass an exam that includes questions regarding the types/classes of fires and suitable extinguishing agents</p>	<p>Elective or incidental skill demonstrations given a simulated fire or a controlled fire (exercise set up by professional fire fighters) each candidate shall participate in the control and handling of a fire on board using the appropriate extinguishing agents</p>
Signalling a Distress VS 3.7	<p>Each candidate shall list the many distress signals listed in Annex IV of the Collision Regulations. The candidate shall identify those that would be used to signal a distress on board the familiar CGA vessel The candidate shall state the location and types of pyrotechnics on board. List the differences of pyrotechnics types A,B, C and D</p>	<p>The candidate shall demonstrate the ability to prepare a flare to fire at the appropriate time and the steps to fire.</p> <p>The candidate must effectively demonstrate the use of emergency equipment to indicate a distress on board their vessel</p>	<p>Each candidate shall pass an exam that includes questions regarding the distress signals listed in Annex IV of the Collision Regulations</p>	<p>Elective or incidental skill demonstrations. Given an emergency scenario, each candidate shall take initial action to deal with the emergency at hand and when or if the scenario requires signalling for help the candidate shall demonstrate the use the equipment on board to effectively signal a distress in two different ways listed in Annex IV</p>

Tasks & references	Standard		Conditions for Evaluation	
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Vessel Inspection VS 3.8	Candidates shall identify the required safety equipment for the size of vessel they are working with. Each candidate shall also use a check sheet to successfully inspect the vessel for mechanical and structural status	Candidates shall to determine whether a vessel meets minimum requirements according to the Small Vessel Regulations. Inspect these items: 1. Personal Protection Equipment 2. Boat Safety Equipment 3. Distress Equipment 4. Navigation Equipment 5. Lights Technical And Sunset To Sunrise	Each candidate shall pass exam questions on <i>Small Vessel Regulations</i> required safety equipment. And answer questions regarding the state of the vessel, the routine maintenance and inspection of the equipment on board	Given a familiar CGA vessel, each candidate shall participate in an effective and thorough routine inspection of the vessel using a checklist
Vessel Systems Maintenance VS 3.9	Each candidate will explain the function and location of all of the items listed in the vessels routine inspection sheet. Each candidate will list at least 2 steps to take when troubleshooting and encountering: engine not starting, not turning over, overheating, stalling, electrical	Each candidate will consistently and successfully participate in the maintenance of the vessel in at least 3 of the following areas /// Hull and superstructure /// Safety Equipment and Rigging /// Engine and Drive /// Electronics and Electrical system	Given equipment operators manual and or maintenance guides each candidate shall list the steps to take in the event of engine trouble as listed in column 1 and identify possible causes electrical problems in vessel equipment and engine systems	Incidental demonstration during regular maintenance Given a familiar and operational auxiliary vessel each candidate will consistently participate in routine maintenance (see list in column 2 of VS 9
Fuelling VS 3.10	Each candidate shall identify the correct actions to take in the event of fuelling emergencies Emergencies while fuelling: 1. Major or Minor spill 2. Fire on vessel 3. Fire on Fuel dock 4. Injury	Each candidate shall list at least four of the steps to safe fuelling and participate in a safe fuelling of a familiar vessel see following steps below: 1. Moor or Secure the craft 2. Shut down engine(s) 3. All people not fuelling go ashore 4. No smoking and extinguish all flame 5. Do not overfill 6. Switch off bilge pumps and any live electrical circuits 7. Close all doors, windows and ports 8. Remove portable tanks 9. Ground nozzle 10. Clean up spillage 11. Check for vapours 12. Use checklist on paper or overhead 13. Activate blower (if applicable) for minimum of 4 minutes.	When asked, candidates list the actions to be taken in the event of emergencies while fuelling as listed in column 1 of VS 10	Each candidate shall participate in a safe fuelling exercise on board an auxiliary vessel and successfully complete at least four of the steps listed in column 2 of VS 10

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>4.0 Electronic Communications Function</p> <ol style="list-style-type: none"> SAR Communication system Operating the VHF Radio Electronic Emergency Signalling systems Communicating as a SAR unit & Radio Log work 	<p>Each candidate shall list the distress and regular CCGA working channels for the area and keep a radio watch for any of the radio distress signals. The candidate shall identify the controls of the VHF radio on a familiar vessel. Each candidate shall list the information included in a SITREP and the non-distress signals Pan Pan and Sécurité.</p>	<p>Each candidate will turn on and set up the VHF Radios to monitor VHF 16 and any designated working channels. Each candidate will transmit a departure message to RCC or the MRSC via the Coast Radio Station (MCTS). Each candidate shall issue a SITREP and report all of the relevant information (see list in competency 4 knowledge section)</p> <p>Each candidate shall demonstrate the use the of any electronic emergency signalling devices on board their vessel</p> <p>Each candidate shall keep a radio log and record all of the relevant information</p>	<p>Electronic Communications will be verbally tested and demonstrated through practical exercises.</p> <p>The instructor may set classroom scenarios utilizing candidate(s) to represent SAR units to exchange signals, and practice priority signals. (Actual use of VHF radio for priority signals Is discouraged).</p>	<p>Given a VHF radio set equipped with basic controls, each student will perform the steps listed in the skills column during an exercise or during regular activities of the CCGA vessel.</p>
<p>SAR Communication system EC 4.1</p>	<p>The candidate shall identify the following:</p> <ul style="list-style-type: none"> ?? The Controlling MCTS facility in the unit's area of operation, ?? Any major peripheral sites ?? The local MCTS's standard working channels <p>The candidate will also identify common radio channels used by other vessels in the local area.</p>	<p>Each candidate shall communicate with RCC/MRSC via MCTS designated working channel</p>	<p>Each candidate will list all of the items specified in the knowledge column during the practical evaluation of radio skills</p>	<p>This knowledge can be evaluated through the practical performance of competency 4.</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>Operating the VHF Radio EC 4.2</p>	<p>The candidate will describe the function of the various controls, operate and adjust each one for correct operation</p> <ul style="list-style-type: none"> ?? Power, ?? Squelch, ?? Channel select, ?? Scan or dual watch, ?? Hi/low, ?? Mode (USA/CDN/INT) ?? Transmit ?? Weather (WX) 	<p>The instructor should have the activate the set and adjust he controls candidate select local working, and set the scan for channel 16 as well as the local vessel traffic management channel, tug boat operating channel, a weather channel Each candidate will transmit a radio check with the local MCTS station and a departure message that includes the following points</p> <ul style="list-style-type: none"> ?? Vessel name ?? Number of souls on board ?? Departing on activity ?? Area of patrol/mission ?? Length of patrol 	<p>Operating the VHF Radio will be verbally tested and demonstrated Through practical exercises. Demonstrations may include use of portable radio(s) and/or the vessel VHF unit.</p>	<p>Given a familiar VHF while departing for an exercise or mission ,The candidate will activate the radio and set it to the appropriate working channel and perform the tasks listed in column 2 as well as shift the mode from inter- national to USA/CDA quickly & easily Squelch: adjust to where signal breaks back off slightly. Readjust volume to comfortable level Recheck squelch Hi/lo (power output) on Hi Intl USA/CDA/INT as appropriate for channel Correct channel(s) monitored. Any other switch/control unique to unit radio Each candidate will using correct procedure transmit the message as listed in column 2 of EC 2 when departing on an exercise or mission</p>
<p>Electronic Emergency Signalling systems EC 4.3</p>	<p>Each candidate shall list and describe the following radio distress signal characteristics mainly how they are transmitted and received as well as how they are acted upon when received.</p> <ul style="list-style-type: none"> ?? EPIRB signal 121.5/406mhz ?? DSC/GMDSS ?? May Day/ May day relay ?? SOS ?? Pan Pan ?? Electronic auto alarm ?? Teletype/radio telephone 	<p>Each candidate shall simulate how to issue a Distress and respond to a May Day relay via VHF radio Channel 16. Each candidate will simulate activating the EPIRB and the DSC signalling equipment.</p>	<p>Each candidate shall recite a simulated message for VHF: Mayday message, a VHF mayday relay, a Pan Pan message and a Securité.</p>	<p>Elective demonstration Given an electronic signalling device (EPIRB) or other the candidate shall simulate the activation of the device to transmit a signal</p>
<p>Communicating as a SRU and keeping a radio log EC 4.4</p>	<p>Each candidate will list the components of : A mission departure message : (see list in competency 3 knowledge section) An Estimated Time of Arrival A SITREP will consist of the following information :</p> <ul style="list-style-type: none"> ?? SAR Unit position, course and speed; ?? ETA on-scene; ?? Current weather conditions. ?? Search area covered to date (the On Scene Commander) would report on the area covered by the entire SAR Unit group); ?? Assistance rendered; ?? Location of datum marker buoy; ?? Any additional information or requests 	<p>Each candidate will list the required information to be taken from a vessel being assisted:</p> <ul style="list-style-type: none"> ?? Vessel name ?? Vessel length ?? Vessel Registration/License Number/gross tonnage/fishing license # ?? Vessel Description Type /Hull /superstructure ?? Vessel Propulsion outboard or inboard type of engine ?? Owner/Operator Names: ?? Certification /Operator competency # ?? Addresses and Birth Date ?? Phone Number ?? Names of all Persons on Board ?? Nature of problem 	<p>Each candidate will pass an exam that assesses the components of a SITREP and the basic vital information taken form a vessel once assisted.</p> <p>One exam question will require the candidate to list at least eight items from the vital information checklist in the knowledge section.</p>	<p>Given a VHF radio or reasonable simulation, each candidate will issue a departure message, a SITREP message, and an estimated time of arrival (ETA). Given a routine patrol on a familiar CCGA vessel Each candidate shall keep a radio log and list the following :</p> <ul style="list-style-type: none"> ?? Vessel's name ?? Names of Coxswain/Captain, Crew and passengers ?? Times of Departure and Arrival ?? Weather ?? Time the vessel passed navigational landmarks ?? Time of radio communications and brief content ?? Any problems with the vessel, damage to the vessel or props,

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>5.0 Seamanship Function</p> <ol style="list-style-type: none"> 1. Knots and Lines 2. Deck safety and Lines under load 3. Mooring and Securing a vessel 4. Anchoring 5. Heaving Lines 	<ol style="list-style-type: none"> 1. Each Candidate shall list the types of rope material found on their vessel. 2. Each candidate shall list the primary safety rules when using lines under load, working with overhead loads and coming along side a moving vessel. 3. Each candidate shall list five different mooring lines and explain their uses. 4. Each candidate shall identify the parts of a small boat anchor and the effects of scope length and bottom type on successful anchoring 	<ol style="list-style-type: none"> 1. Each candidate shall tie five common knots 2. Each candidate will demonstrate safe working practices when working around lines under load 3. Each Candidate shall tie up the vessel and use correct securing techniques as well as secure the deck and equipment for weather. 4. Each Candidate shall locate the anchor and anchor rode and deploy the anchor to successfully anchor the vessel 5. Each Candidate shall prepare and through a working line and/or a heaving line 	<p>Each candidate shall pass an exam that includes:</p> <ol style="list-style-type: none"> 1. The types of lines and their uses 2. The primary safety rules of line under load and Deck work 3. The five different mooring lines 4. Different parts of an anchor and scope lengths. <p>Each candidate will answer questions regarding line safety and anchoring theory during the exercise.</p>	<p>Given a familiar CGA vessel and its standard equipment,</p> <ol style="list-style-type: none"> 1. Each candidate shall tie five knots 2. will demonstrate safe working practices when working around lines under load can be demonstrated during a towing exercise 3. Each Candidate shall tie up the vessel and use correct securing techniques as well as secure the deck and equipment for weather 4. Each Candidate shall complete one of the following tasks: <ul style="list-style-type: none"> 1. Locate the anchor, anchor rode and deploy the anchor to successfully anchor the vessel. The anchor deployment demonstration may be replaced with an anchoring exercise paper. 2. Prepare and throw a working line or a heaving line
<p>Knots and Lines SS 5.1</p>	<p>Each Candidate shall identify the types of line found on the vessel and describe the strengths and weaknesses of each type.</p> <p>Polypropylene Nylon/Dacron (other) Natural Fibre</p> <p>Each candidate shall describe proper line care and stowage.</p> <p>Each candidate shall identify the signs of line damage or excessive wear</p>	<p>Each Candidate shall tie the following n knots:</p> <ol style="list-style-type: none"> 1. Bowline 2. Round turn and two half hitches 3. Clove hitch 4. Reef knot 5. Sheet bend <p>Each candidate shall use these knots in effective applications.</p> <p>Each candidate shall coil and stow lines</p>	<p>Each candidate shall pass an exam that includes the types of lines and correct care and stowage of lines.</p> <p>Each candidate shall answer questions during the demonstration regarding applications of knots</p>	<p>Given a piece of line, the candidate shall tie the following n knots correctly at least once :</p> <ol style="list-style-type: none"> 1. Bowline 2. Round turn and two half hitches 3. Clove hitch 4. Reef knot 5. Sheet bend <p>Each candidate shall use these knots in effective applications.</p> <p>Each candidate shall coil and stow lines</p>

Tasks & references	Standard		Conditions for Evaluation	
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Deck Safety and Lines under Load SS 5.2	Each candidates shall list the following safety rules: 1. Do not stand in the bight 2. Do not stand under a load 3. Wear your safety gear (hat & toes) 4. Do not use gloves with rope towline 5. Keep hands away from cleat when feeding a line out. 6. Prevent shock loading 7. Stand aside from the direction of recoil of a towline under load	Each Candidate shall demonstrate safe working practices when demonstrating skills such as anchoring and towing. Lines will be kept orderly and direct communication will be used when working with lines under load. Each candidate will demonstrate the ability to secure gear and equipment in lockers and on deck. Each candidate will exercise caution when	The candidate shall pass a written exam that includes at least two of the listed safety practices will be included in the exam	Given exercises like anchoring, towing, and tying up each candidate will demonstrate the habits listed in the skills section.
Mooring and Securing a Vessel SS 5.3	Each candidate will identify the following five lines 1. Bowline 2. Forward spring line 3. Breast line 4. After spring 5. Stern line	Each Candidate will secure and let these lines in the appropriate order. (Order defined by the coxswain). Each candidate will apply bowline on first and off last when passing a line to another vessel along side while underway.	The candidate shall pass a written exam that includes the five mooring lines and their purpose	Given a familiar CGA vessel with a minimum of three mooring lines each candidate will demonstrate the habits listed in the skill section through exercises like anchoring, towing, and tying up.
Anchoring SS 5.4	Each canditde will name the following parts of an anchor 1. Shank 2. Fluke 3. Crown 4. Stalk Each candidate will define the term scope and its relevance to anhorng	Each candidate will participate in the successful anchoring of a vessel that involves the responsibility of one or more of the following roles 1. Setting up the anchor 2. Dropping the anchor 3. Manoeuvring the vessel 4. Retrieving the anchor 5. Stowing the anchor	The candidate shall pass a written exam that includes the parts of an anchor and the concept of scope ratio.	Elective: or incidental: Given a familiar CGA Vessel in a depth of water not greater than half the length of the anchor rode. Equipped with an anchor and appropriate ground tackle. Each candidate will participate in successful anchoring exercise. This skill may be substituted with an anchoring preparation drill along with a written quiz.
Throwing a line Heaving Lines SS 5.5	Each candidate shall state at least two situations in which it would be necessary to throw a line or a heaving line. Each candidate shall describe a heaving line and its purpose.	Each candidate shall prepare and throw a heaving line using the following steps: a) Coil it b) Hold it c) Aim it d) Toss it! Each candidate shall attach a heaving line onto larger line using a slip bowline.	Given a hypothetical situation or a scenario in the skill demonstration each candidate shall choose the appropriate line to throw and give an example of an inappropriate line to use Each candidate shall explain the proper use of a heaving line and when it should be used in a small boat setting.	Elective or incidental: Given a working line and /or heaving line and a target Each candidate shall prepare, secure and throw and heaving line in the predicted direction and have the line extend without tangle.

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>6.0 Boat Handling Function</p> <ol style="list-style-type: none"> 1. Vessel Characteristics & Hull Types 2. Start Up & Departure 3. Manoeuvring 4. Propulsion and Direction 5. Docking 6. Planing Trim angle and Power Ratio & high speed avoidance 	<p>Each Candidate Shall identify and define the characteristics of vessel in regards to general vessel terms and manoeuvring at speed.</p> <p>Each candidate shall list the safety steps to take before starting a vessel.</p> <p>Each Candidate shall compare the concepts of directed thrust and Rudder deflection.</p> <p>Each candidate shall identify the outside arc engine in twin engine manoeuvring.</p> <p>Each candidate shall define the relationship between trim angle and power ratio.</p>	<p>Each candidate will demonstrate the correct preparation and safety steps for engine start up</p> <p>Each Candidate shall manoeuvre the vessel in confined spaces using the principles of Directed or Rudder thrust. Each candidate shall use the outside arc engine to execute turns with twin engine vessels.</p> <p>Each candidate shall get a vessel capable of planing on to a plane and trim that vessel for optimum Performance.</p> <p>Each candidate shall dock the vessel successfully</p>	<p>Each candidate shall pass a written exam that includes questions regarding the points listed in the knowledge section.</p> <p>Each Candidate shall answer questions regarding the listed knowledge points during the demonstration of skills and explain the practical application of that knowledge.</p>	<p>Given a familiar CGA vessel and reasonable weather conditions each candidate shall safely start the vessel and pull away from the dock. Each candidate shall effectively manoeuvre the vessel at slow speed given a confined space.</p> <p>Each candidate shall bring the vessel up to speed (if planing hull) and trim for optimum performance.</p> <p>Each Candidate shall return to the mooring and successfully dock and secure the vessel.</p> <p>Given a floating object Each candidate shall perform a high speed avoidance manoeuvre and successfully avoid striking the object</p>
<p>Vessel Characteristics & Hull Types BH 6.1</p>	<p>Each candidate shall define and explain the terms that describe directions on a vessel: Forward, Aft, Aft, Port Starboard, Beam, Amidships, Athwartships, Aloft, Inboard and Outboard.</p> <p>Each Candidate shall define the terms: Draft, Hatch, Ballast Bitt, Bollard Sponson , freeboard , Pitch, roll transom, chines, engine well, bulkhead, stringers, void space, strut, cavitation plate, skeg, keel,</p> <p>Each candidate shall explain the concept of hull speed and its effect on displacement vessels.</p> <p>Each candidate shall explain the effect of wetted surface and hull drag in the terms of a planing hull.</p>	<p>Each Candidate shall perform the competencies listed in the following sections using the correct terms.</p>	<p>Each candidate shall pass a written exam that includes questions regarding some of the terms and concepts listed in the knowledge section.</p> <p>Each candidate will use the directional terms during the demonstration of the skills of the Boat handling Function.</p>	<p>During the demonstration of the other boat handling competencies each candidate shall use the correct terms to describe direction and various aspects of the vessel as it is operating.</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Start Up & Departure BH 6.2	<p>Each candidate will list the following (skill section) steps to starting their familiar CGA Auxiliary vessel. Each candidate shall describe the dangers involved when missing steps in a pre-departure check and safe start up, some dangers are:</p> <p>no blower- spontaneous explosion of fuel fumes No visual inspection of engines/props - starting with engines out of water.</p>	<p>Each Candidate shall follow the steps outlined in the knowledge section to safely start the vessel.</p> <ol style="list-style-type: none"> 1. Complete Pre-departure Check see (vessel Safety) 2. Make sure vessel is secure and crew ready (Pfd's and Gear) 3. Visual inspection of engine area and engines 4. Run blower (apply glow plugs for diesel) 5. Turn on battery power 6. Prime engine (if necessary) 7. Start engine/engines and warm up at recommended RPM for recommended time <p>Each candidate shall safely and effective use controlled engine movements to pull away from the dock.</p>	<p>Each candidate shall discuss the dangers involved in starting vessel during the start up exercise</p>	<p>Given a familiar CGA vessel and reasonable weather conditions each candidate shall safely start the vessel following all the steps outlined in the skill sections consistently throughout the evaluation of skills.</p> <p>Each candidate shall safely and effectively use controlled and planned throttle and helm movements to pull away from the dock.</p>
Manoeuvring BH 6.3	<p>Each candidate shall define the terms and explain the effect of:</p> <ol style="list-style-type: none"> 1. Wind and current on manoeuvring 2. Pivot points in forward and reverse, 3. Lever arm advantage 4. Transverse Thrust 5. Outside arc (for twin engine vessels) 	<ol style="list-style-type: none"> 1. Each candidate shall turn the vessel around in a confined space. 2. Use the throttles and helm to maintain station off of a stationary spot. 3. Apply the concept of pivot point in confined spaces allowing enough room for the vessel to swing in a given area. 4. Keep control and awareness of Speed, Throttles and Position of helm to execute a confined space manoeuvre. 	<p>Each candidate shall pass a written exam that includes questions regarding some of the terms and concepts listed in the knowledge section</p> <p>Each Candidate shall apply the theory to successfully complete the skills.</p>	<p>Given a familiar CGA vessel, reasonable weather conditions and a confined space (A square with dimensions 1.5 times the boat length or less), each candidate shall take into account the wind and current and complete the manoeuvres listed in the skills standard. These skills shall be demonstrated at least once without damage to the vessel or other docks and/or vessels.</p>
Propulsion and Direction Single engines/Twin Engines BH 6.4	<p>Each candidate shall define the terms and explain the effect of:</p> <ol style="list-style-type: none"> 1. Directed Thrust verses Rudder 2. Bare Steerage way 3. Parts of a propeller: Blade, leading edge, Trailing edge, Inner & outer Hubs, Diameter, Pitch, Shaft, 4. Ventilation and Cavitation 5. Transverse Thrust 6. Counter-rotating Propellers 	<p>Each candidate shall apply the principles of bare steerage way, and pivot point to operate the throttles and helm and manoeuvre the vessel effectively during the manoeuvring competency and the Docking competency.</p> <p>Each candidate that is driving a twin engine vessel will apply the principle of outside arc when turning and manoeuvring at slow speed.</p>	<p>Each candidate shall pass a written exam that includes questions regarding some of the terms and concepts listed in the knowledge section</p> <p>Each Candidate shall apply the theory to successfully complete the skills.</p>	<p>Each candidate shall apply the principles of bare steerageway, and pivot point to operate the throttles and helm and manoeuvre the vessel effectively during the manoeuvring competency and the Docking competency.</p> <p>Each candidate that is driving a twin engine vessel will apply the principle of outside arc when turning and manoeuvring at slow speed</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Docking BH 6.5	Each candidate will explain the effects of wind and current when coming alongside a vessel or docking	Each candidate shall approach slowly and come alongside a dock and bring the vessel to a complete stop. Each candidate shall compensate for wind and current when approaching.	Demonstration of the knowledge is accomplished through successful demonstration of the skill	Given a familiar CGA vessel, and reasonable weather conditions each candidate shall take into account the wind and current and bring the vessel parallel to the dock and to a complete stop. The vessel shall be no more than 0.5 of a meter away from the dock for the period of 10 seconds.
Note: (Planing vessels only) Planing Trim angle and Power Ratio (high speed avoidance) BH 6.6	Each candidate shall define and explain the terms: trim, wetted surface, chine hopping, porpoising. Each candidate shall explain the effects of Under trim (trimmed in) and Over trim (trimmed out) on their familiar vessel. Each candidate shall describe the steps involved in a high-speed avoidance manoeuvre.	Each candidate shall warn the crew of intent to accelerate and safely bring the vessel up on to a plane. Each candidate will trim engines or trim tabs to vessels optimum performance for the given RPM and speed. Each candidate shall avoid a floating object seen last minute while travelling on a plane.	Demonstration of the knowledge is accomplished through successful demonstration of the skill	Given a familiar CGA vessel and reasonable weather conditions each candidate shall warn the crew of intent to accelerate and bring the vessel safely onto a plane. Each candidate will trim engines or trim tabs to vessels optimum performance for the given RPM and speed. Given a familiar CGA vessel, and reasonable weather conditions each candidate shall perform a high speed avoidance manoeuvre and successfully avoid striking a floating object

Tasks & references	Standard		Conditions for Evaluation							
	Knowledge	Skills	Knowledge	Skills						
<p>NAV 7.0 (a) Chart Work and Aids to Navigation</p> <ol style="list-style-type: none"> Charts Symbols & Publications Compass Steering & Lookout Lateral Buoyage system Cardinal Buoyage system Light Characteristics Tides and Weather Latitude and Longitude Drawing a Course line Calculating Time, Speed and Distance 	<p>Each candidate shall</p> <ol style="list-style-type: none"> Identify the various symbols for dangerous submerged objects and main features of a chart. Be able to identify the nautical publications and their uses. Explain the buoyage system and light characteristics. Obtain the local weather. Obtain co-ordinates from a point on a chart and determine a point from co-ordinates. use the time speed and distance formula 	<p>Each Candidate effectively shall demonstrate the skills involved in:</p> <ol style="list-style-type: none"> Steering a compass course and keeping a lookout Identifying all buoys and steering correctly around them Identifying light characteristics Obtaining the weather and Calculating the tides Obtain co-ordinates from a point on a chart and determine a point from co-ordinates Drawing a course line between tow points clear of dangers. Transferring a magnetic course from the compass rose to the route and vice versa Calculating Time speed and Distance 	<p>Each Candidate shall pass a chart work exercise/exam that includes questions regarding the six points listed in the knowledge section.</p>	<p>Given a familiar vessel underway in calm to moderate conditions. Each Candidate shall demonstrate the skills involved in Steering a steady course by compass Identifying Local Navigation aids and steering around them correctly. Each Candidate shall pass a chart work exam that involves the demonstration of skills 3-7 listed in the skills section.</p>						
<p>Charts , Symbols Nautical Publications NAV 7a.1</p>	<p>Each candidate shall identify the following publications and their uses: Tide Tables, List of Lights and Radio Aids, notice mariners and Chart no.1 Each Candidate shall identify the chart block and compass rose as well as the chart scale .and the following chart symbols:</p> <table border="0"> <tr> <td>?? rock awash, rock which covers and uncovers at drying height</td> <td>?? submerged wreck</td> </tr> <tr> <td>?? dangerous underwater rock</td> <td>?? current symbols/arrows</td> </tr> <tr> <td></td> <td>?? boat ramp, lifeboat station</td> </tr> </table>	?? rock awash, rock which covers and uncovers at drying height	?? submerged wreck	?? dangerous underwater rock	?? current symbols/arrows		?? boat ramp, lifeboat station	<p>Incidental Demonstration only</p>	<p>Each candidate shall pass an exam that includes questions that regard all of the items listed in the knowledge section.</p>	<p>Incidental Demonstration only</p>
?? rock awash, rock which covers and uncovers at drying height	?? submerged wreck									
?? dangerous underwater rock	?? current symbols/arrows									
	?? boat ramp, lifeboat station									

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>Compass , Steering and Lookout NAV 7a.2</p>	<p>Each candidate shall define the following aspects of the compass</p> <ol style="list-style-type: none"> 1. True bearing: (North Pole) 2. Variation: 3. Magnetic: 4. Deviation: 5. Compass/ships course: <p>Each candidate shall explain the types of objects that would create magnetic fields on the vessel and increase compass deviation.</p>	<p>Each candidate shall receive and confirm a compass course helm order. Each candidate shall steer that course effectively whiles keeping a lookout for traffic and dangers. Each candidate will receive a course change and confirm and apply that change.</p> <p>Each candidate shall apply the principles of rule 5 collision regulations and keep a lookout using all available means.</p> <p>Each candidate shall identify types of vessels spotted and give an estimate of range and aspect of those vessels</p>	<p>Each Candidate shall pass an exam that includes questions regarding the information listed in the knowledge section</p>	<p>Given a CGA Vessel underway in light to moderate sea conditions in any condition of visibility, each candidate shall receive and confirm a compass course helm order and steer that course effectively for three minutes without deviation of more than 10 degrees. Each candidate will receive a course change and confirm and apply that change.</p> <p>This skill will be performed whiles keeping a lookout for traffic and dangers. Each candidate shall identify types of vessels spotted and give an estimate of range and aspect</p>
<p>Lateral Bouyage system. NAV 7a.3</p>	<p>Each candidate shall identify the following: Lateral markers and buoys Port, Starboard, Bifurcation and lights and shapes Each candidate shall explain the correct actions around these Navigation aids.</p>	<p>Each candidate shall identify the lateral markers and channel markers in their local area and locate any hazards related to those marks.</p>	<p>Each Candidate shall pass an exam or complete an exercise that includes questions regarding the information listed in the knowledge section</p>	<p>Elective or incidental Given a CGA Vessel underway in light to moderate sea conditions each candidate shall identify the lateral markers and channel markers in their local area and locate any hazards related to those marks.</p>
<p>Cardnal Bouyage system And Special Buoys NAV 7a.4</p>	<p>Each candidate shall identify all of the cardinal buoys, their light and topmark characteristics for North, South, East and West. Each candidate shall identify an isolated danger marker. As well as the following special buoys: cautionary buoy Diving buoy Danger buoy Keep out Control buoy Hazard buoy Swimming buoy Information buoy</p>	<p>Each candidate shall identify the Cardinal and special buoys in their local area and inicate any hazards related to those marks.</p>	<p>Each Candidate shall pass an exam or complete an exercise that includes questions regarding the information listed in the knowledge section Each Candidate will identify the navigation aids in their local area of operation and discuss the hazards that are related to them</p>	<p>Elective or Incidental Given a CGA Vessel underway in light to moderate sea conditions each candidate shall identify the Cardinal and special buoys in their local area and locate any hazards related to those marks.</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Aids to Navigation Light Characteristics and Fog Signals NAV 7a.5	Each Candidate will identify all of the light characteristics in their local area of operation. Each candidate will identify all (if any) of the fog signals in their patrol area.	Incidental demonstration only When operating at night each candidate shall identify the lit navigation aids in their area by determining their characteristics visually and by chart.	Each Candidate shall pass an exam or complete an exercise that includes questions regarding the information listed in the knowledge section Each Candidate will identify the navigation aids in their local area of operation and discuss the hazards that are related to them	Incidental demonstration only Given a CGA Vessel underway in light to moderate sea conditions operating at night, each candidate shall identify the lit navigation aids in their area by determining their characteristics visually and by chart.
Tides and Weather NAV 7a.6	Each candidate will obtain the weather and identify the best source for marine weather for their area. They will also identify any local weather hazards for the area. Each candidate will locate and record the local tidal information.	Each candidate will use basic recorded tide information and apply secondary port corrections and daylight saving correction if applicable to obtain local tidal information.	Given the normal resources available to the CGA vessel and a current tide table Each candidate shall prepare the listed information in the knowledge and obtain a weather report.	Given normal resources and a current tide table For the preparation of a trip/training exercise each candidate shall obtain and prepare the tidal and weather information for the local area. They shall identify any local hazards in regards to outflow/winds and or current.
Latitude and Longitude and fixing a position NAV 7a.7	Each candidate shall use the Standard formulae for writing Lat. and Long. N 48° 51.5', W 123° 44.8' Seconds. Each candidate shall identify the interval differences between the latitude scale a longitude scales.	Each candidate shall transfer the co-ordinates chart feature to numbers and vice versa. Each candidate shall use the latitude scale to measure distances. Given a set of co-ordinates, each candidate will find that position on the chart	Given a Chart each candidate shall demonstrate the knowledge of latitude and longitude by successful demonstration of the skill.	Given a chart, parallel rules (or other suitable non-electronic navigation tool) a dividers. Each candidate shall plot at least two sets of co-ordinates and determining co-ordinates of two features on the chart.

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Drawing a course line from the compass rose NAV 7a.8	Each candidate shall Identify the following elements of the compass rose and explain their use in navigation. ?? Magnetic and True rose rings ?? Area Variation and Annual Variation change information ?? Reciprocal bearings	Each candidate shall take a course from the magnetic rose and transfer that course to a navigable area on the chart Each candidate shall take course line and transfer that line to the compass rose and determine its true and relative bearing.	All the knowledge in this section can be evaluate through practical demonstration of the skill.	Given a chart, parallel rules calculator and dividers. Each candidate shall take a course from the magnetic rose and transfer that course to a navigable area on the chart Each candidate shall take course line and transfer that line to the compass rose and determine its true and relative bearing
Calculating Time Speed and Distance (ETA) NAV 7a.9	Each candidate shall write the 60DST equation and identify the sysmbols	Each candidate shall measure a distance between tow points and calculate an ETA at a given speed for that distance Each Candidate will use the 6-minute finger method for calculating quick ETA's for speeds in the 12-35 knot range.	All the knowledge in this section can be evaluate through practical demonstration of the skill	Given a chart, parallel rules calculator and dividers. Each candidate shall determine the distance between two points and calculate the estimated time of arrival for a given speed.

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>7.0 (b) Collision Regulations</p> <ol style="list-style-type: none"> 1. Fundamentals 2. Sound signals Basic 3. Day Shapes Basic 4. Nav lights Basic 5. Rules of the Road Basic 6. Rules of the Road Working vessels 7. Navigation lights Working vessels 8. Sound signals Working vessels 9. Narrow Channels 10. Day shapes Special Working vessels 	<p>Each candidate shall be familiar with the practical application of all of the basic rules:</p> <ul style="list-style-type: none"> ?? Fundamentals ?? Sound Signals ?? Day shapes ?? Rules of the Road ?? Narrow Channels <p>And at least two of the four commercial or advanced level, of Lights, Rules of the Road, Day shapes and Sound signals</p>	<p>Each Candidate shall apply the listed collision regulations when making navigation decisions while operating the vessel during the day or at night</p>	<p>Each Candidate will pass a written exam that focuses on the practical application of the Basic Collision Regulations listed in the Knowledge standard.</p> <p>Each Candidate will pass a written exam focussing on the practical application of two of the four commercial or advanced sections of the collision regulations.</p>	<p>Incidental Demonstration Only (this means only evaluated by coxswain when opportunity presents)</p> <p>Each Candidate will apply the listed collision regulations when making navigation decisions while operating the vessel during the day or at night. If during the normal operations of the vessel the candidate is having problems with the application of the rules then the coxswain may use a supplemental evaluation tool (exercise or exam) to re-evaluate the crewmembers ability to apply the rules)</p>
<p>Fundamental Rules COL 7b.1</p>	<p>Each Candidate will understand the underlying ideas behind these rules with special emphasis on Lookout and Safe Speed</p> <ul style="list-style-type: none"> ?? Rule 2 Responsibility ?? Rule 3 Definitions ?? Rule 4 apply in any condition of visibility ?? Rule 5 Lookout ?? Rule 6 Safe Speed ?? Rule 7 Determine Risk of Collision ?? Rule 8 Action to avoid Collision ?? Traffic separation Schemes 	<p>Each Candidate during the course of operating the vessel will demonstrate the application of early and substantial action. They will also observe the practices of good seamanship by passing astern where practicable and making bold, early alterations.</p>	<p>Each Candidate will pass a written exam or quiz that that focuses on the practical application of these Rules. The concepts of lookout and Safe speed will be emphasised in this exam.</p>	<p>Incidental Demonstration Only</p> <p>Each Candidate will apply the listed collision regulations when making navigation decisions while operating the vessel during the day or at night. If during the normal operations of the vessel the candidate is having problems with the application of the rules then the coxswain may use a supplemental evaluation tool (exercise or exam) to re-evaluate the crewmembers ability to apply the rules)</p>
<p>Sound Signals Basic COL 7b.2</p>	<p>Sound signals for small boats:</p> <ul style="list-style-type: none"> ?? Define short blast and long blast of the ship's whistle ?? Five short blasts of the whistle ?? Fog signals: power-driven vessel; sailing vessels, ?? Manoeuvring signals for operating astern propulsion, altering to port, altering to starboard. 	<p>Each candidate will be able to demonstrate the use of the sound signalling devices on board the vessel including air horns or whistles. Each candidate shall sound the proper signal when operating in or around the vicinity of fog.</p>	<p>Each Candidate will pass a written exam or quiz that that focuses on the practical application of these Rules. Collision regulations basic exam material</p>	<p>Incidental Demonstration Only</p> <p>Each candidate will apply the correct sound signals while operating in fog or in a urgent situation where the attention of another vessel is required.</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Day Shapes Basic COL 7b.3	Day shapes for small vessels ?? Anchor ball ?? Motor-sailing ?? Diving Code flag alpha and buoy flag ?? Fishing	No skill demonstrated	Each candidate will pass the basic Collision Regulations exam and the listed basic day shapes will all be included on that exam.	Incidental Demonstration Only
Navigation Lights Basic COL 7b.4	Navigation Lights for small boats Use overheads or flash cards to display the different light combinations for a power driven vessel ?? Light combinations for a power-driven vessel under 50 metres under way and at anchor ?? Small vessels under 12 metres ?? Display three different combinations for the small powerboats, and vessels under oars Display the options for sailing vessels under 20 metres and sailing vessels under seven metres	Each Candidate will check and turn on the navigation lights of the SRU at night. Each Candidate shall apply the correct collision regulations when presented with lights on an approaching power vessel, sailing vessel or small vessel.	Each candidate will pass the basic Collision Regulations exam and the listed basic Navigation Lights for small vessels will all be included on that exam.	Incidental Demonstration Only Each Candidate will apply the listed collision regulations when making navigation decisions while operating the vessel during the day or at night. If during the normal operations of the vessel the candidate is having problems with the application of the rules then the coxswain may use a supplemental evaluation tool (exercise or exam) to re-evaluate the crewmembers ability to apply the rules.
Rules of the Road Basic COL 7b.5	Vessels in sight of each other Over-taking another vessel from an angle more than 22.5 degrees abaft the beam. ?? Power driven vessels meeting head on ?? When one power driven vessel has the other on her starboard side ?? Sailing-Define determination of tack while under sail ?? Two vessels sailing on different tacks Starboard tack right of way. ?? Two vessels on the same tack- ?? When one sailing vessel on port tack sees another sailing vessel but cannot determine which tack they are on they shall give way.	Each Candidate during the course of operating the vessel, will demonstrate the application of The rules of the road when presented with approaching power driven vessels from either side, when overtaking, when meeting another vessel head on. Each Candidate will also recognise sailing vessels and give way appropriately. They will observe the practices of good seamanship by passing astern where practicable and making bold, early alterations	Each candidate will pass the basic Collision Regulations exam and the listed basic rules of the road will all be included on that exam.	Incidental Demonstration Only Each Candidate will apply the listed collision regulations when making navigation decisions while operating the vessel during the day or at night. If during the normal operations of the vessel the candidate is having problems with the application of the rules then the coxswain may use a supplemental evaluation tool (exercise or exam) to re-evaluate the crewmembers ability to apply the rules

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Rules of the Road Special working vessels COL 7b.6	?? Vessels engaged in Fishing ?? Vessels engaged in Trawling ?? Vessel engaged in Towing ?? Vessels Restricted in their ability to manoeuvre ?? Vessels not under command ?? Vessels engaged in Minesweeping	Incidental demonstration only	Advanced Elective Section	Incidental Demonstration Only
Navigation Lights Special working vessels COL 7b.7	Power driven over fifty metres Vessels engaged in Fishing Vessel at anchor (>100m) Vessels engaged in Trawling Vessel engaged in Towing ?? Pushing ?? Towing >200m ?? Towing <200m ?? Barge (all sizes) ?? Tow width .25m ?? Partially submerged object Vessels Restricted in their ability to manoeuvre Vessels not under command Vessels engaged in Minesweeping	Incidental demonstration only	Advanced Elective Section Each candidate will pass an exam or exercise on the Navigation lights of the listed vessel and their perspective activities. The exam will emphasise the practical application of these rules in regards to recognition and appropriate action to take.	Incidental Demonstration Only
Sound Signals Special working vessels COL 7b.8	?? Vessel at anchor in fog (>100m) ?? Vessels engaged in Sailing, pilot vessel, ?? Stopped, ?? Restricted in its ability to manoeuvre ?? Not under command ?? Aground	Incidental demonstration only	Advanced Elective Section Each candidate will pass an exam or exercise on the sound signals of the listed vessel and their perspective activities. The exam will emphasise the practical application of these rules in regards to recognition and appropriate action to take.	Incidental Demonstration Only

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Narrow Channels and waterways (Canadian Modifications) Rule 9 COL 7b.9	?? Two vessels meeting upstream and down stream ?? Starboard side ?? Vessel under 20m or sailing not impede bigger vessels ?? No fishing in channel	Incidental Demonstration only Each Candidate during the course of operating the vessel, will demonstrate the application of The rules of the road when presented with approaching power driven vessels from either upstream or down stream when overtaking, when meeting another vessel head on. Each Candidate will also recognise larger vessels in the narrow channel and give way appropriately. They will observe the practices of good seamanship by crossing at right angles and travelling on the starboard side of the channel practicable and making bold, early alterations they will sound the appropriate signals when necessary	Each candidate will pass the basic Collision Regulations exam and the listed narrow channels and Canadian modifications will be thoroughly assessed.	Incidental Demonstration Only
Days Shapes COL 7b.10	?? Vessels engaged in Fishing ?? Vessels engaged in Trawling ?? Vessel engaged in Towing ?? Vessels Restricted in their ability to manoeuvre ?? Vessels not under command ?? Vessels engaged in Minesweeping	Incidental Demonstration Only	Advanced Elective Section	Incidental Demonstration Only

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>7.0 c Electronic Navigation Function</p> <ol style="list-style-type: none"> Radar Set up Radar Tools Radar Safety GPS & DGPS Electronic Chart Plotter Depth Sounder Basic Piloting 	<p>Each candidate shall identify the steps to take in activating and setting up the radar.</p> <p>Each candidate will list the radar and GPS main functions/controls and explain their uses.</p> <p>Each candidate will explain the meaning of constant bearing and decreasing range. And identify the implications of a target with these indicators.</p> <p>Each candidate will identify the modes and operations of a GPS and/or Chart plotter</p> <p>Each candidate will list the criteria for actions (notifying or stopping) during a navigation watch.</p>	<p>Each candidate shall activate, transmit a radar signal. Each candidate will adjust the controls to provide a well-lit, clear display of the objects and landmass within a six-mile range. Each candidate will use the radar tools to obtain a range and bearing of an object and track a moving target over a time interval. Each candidate will identify a target that presents a risk of collision.</p> <p>Each candidate will activate and set-up a GPS/DGPS construct sail plans and input waypoints considering navigational information and hazards. Each candidate will if available activate and use a chart plotter to relate the GPS and Radar obtained position to the electronic chart. Each candidate will operate a depth sounder so as to determine the depth under the keel. When familiar with the operation of all electronic tools on board the candidate will plan a route on a paper chart then enter the waypoints into the electronic navigation system and using the radar plus all available means participate in running the planned route</p>	<p>Given written exercises, tests and/or questions during the practical exercises each candidate shall explain describe or identify the points outlined in EN 1-7 evaluation of knowledge sections.</p>	<p>Given a familiar vessel in reasonable wx conditions (light-moderate wind and sea), each candidate will activate set-up the Radar, GPS/DGPS and /or chart plotter, as well as the sounder to operate at optimum performance for the present conditions. Each candidate will operate the equipment efficient and prudent manner while using all available means to navigate the vessel through a basic route.</p> <ol style="list-style-type: none"> The candidate will pay due regard to safe speed and keep a proper lookout The candidate will be able to fix a position at least twice during the voyage with the aid of the electronic nav equipment The candidate will identify dangers during the route and suggest or take action to avoid them The candidate shall not put the vessel in danger while underway and making way.
<p>Radar Set Up EN 7c.1</p>	<p>Each candidate shall identify the controls and their purpose in setting up the radar.</p> <p>?? ON/OFF ?? Transmit ?? Brilliance ?? Gain ?? Tuning ?? Range ?? Rain Clutter ?? Sea Clutter</p> <p>Each candidate shall describe what happens to the objects on the screen when the vessel turns port or starboard (un-stabilised head-up mode)</p>	<p>Each candidate shall turn on the radar, let it warm up and switch it to transmit.</p> <p>Each candidate will follow 5 steps :</p> <ol style="list-style-type: none"> Adjust the brilliance Turn off the Rain and Sea clutter. Adjust the gain for best return Set the Range to 3nm or greater. Tune the radar or set the Auto tune feature 	<p>Using a simulator, or radar each candidate will identify the controls of the radar listed in EN 1 Knowledge section and explain the use and purpose of each one.</p> <p>Each candidate will explain the use and effect of the following controls Gain Rain Clutter (FTC) Sea Clutter (STC)</p> <p>Each candidate will describe what happens to targets when too much Rain or Sea Clutter is used</p>	<p>Given a functioning radar or radar simulator in any condition of visibility, each candidate shall activate the radar and transmit a radar signal. They will then demonstrate the 5 steps listed in EN 1 skill section and adjust the radar controls to provide a well-lit, clear display of the objects and landmass within a six-mile range.</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Radar Tools Competency EN 7c.2	Each candidate will identify the VRM, range rings and EBL controls and describe their purpose and accuracy.	The candidate must activate and manipulate the basic tools for determining the range and bearing of targets on the radar. The candidate must identify the values assigned to the tools <u>Critical Actions/Steps:</u> Activate VRM read values Activate EBL read values Use cursor (if present) to establish Range and BRG	Given a functioning and familiar radar or simulator and/or operators manual in any condition of visibility, each candidate will explain the main features of the radars EBL and VRM and cursor. Each candidate will describe the uses of these features in coastal navigation and target tracking.	Given a functioning and familiar radar or simulator and/or operators manual in any condition of visibility, each candidate will activate the VRM and EBL and use them to obtain the range and bearing of an island or landmass and a moving target.
Radar Safety Competency EN 7c.3	Each candidate shall know the main differences between true motion and relative motion of targets on a radar screen. Candidates will explain the difference between relative motion and true aspect. Candidates will state the significance of a target with a steady bearing and decreasing range. Each candidate will identify the following situations when the radar will provide scanty information. Error list <ul style="list-style-type: none"> ☞ Low beach profile ☞ Lost targets due to filters (rain & sea) ☞ Improper heading alignment 	The candidates will be able to use the VRM and EBL or cursor to measure a distance off of a point of land and determine a course change (port/stbd) to maintain that distance off of land. Each candidate will track a moving target and determine if a risk of collision exists	Given a familiar radar or radar simulator or a written test each candidate shall explain the difference between true motion and relative motion in regards to relative track on the screen and real life aspect (direction headed). Given a familiar radar or radar simulator The candidate must be able to identify a landmass and correlate that to its paper chart equivalent. Given a familiar radar or radar simulator the candidate will identify a land mass and discuss the effect of poorly reflective targets and picture distortion and identify the possible causes of the scanty information list in the knowledge section	Given a functioning and familiar radar or simulator in any condition of visibility, each candidate will track a moving target and determine if a risk of collision exists The candidate must be able to use the radar tools to safely transit a passage at a controlled distance from shore. <u>Critical Actions/Steps:</u> 1. Identify landmass and tune for display. Identify on the chart. 2. Use EBL and VRM for range and bearing pilotage and clearing position (Use cursor after) 3. Relate radar position of landmass to the paper chart.
GPS/DGPS EN 7c.4	Each candidate shall be familiar with the GPS satellite based system and the initialisation procedure for the acquisition of an accurate fix. Each student will be able to explain the meaning HDOP and the effect it has on accuracy. Each candidate will explain DGPS and how it increases the accuracy	Each candidate will be able to activate the GPS and DGPS and set up the following functions: <ul style="list-style-type: none"> ☞ Assess the number of satellites tracked and identify HDOP on the satellites. ☞ Select the best DGPS station(or auto select correctly) ☞ Select the appropriate chart datum for the paper chart of the area. ☞ Enter a waypoint and connect to a second waypoint ☞ Activate a route ☞ Use the NAV screen to follow that route 	Given a GPS/DGPS and operators manual each candidate will use the operator's manual to determine the steps in checking the accuracy of the GPS fix and DGPS input. When asked the candidate will explain the significance of a hi or low HDOP. Given the operators manual and/or the GPS each candidate will list the steps involved in checking the Geographic Datum that the GPS is set to.	Given a functioning and familiar GPS and/or DGPS unit each candidate will set up and activate the functions listed in the skill section EN 6. During the exercise underway EN

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Electronic Chart Plotter EN 7c.5	Each candidate will identify the type of electronic chart displayed (chart, map, raster or vector) and the datum that the chart is using. Each candidate will compare the paper chart datum with the GPS and Plotter Datum	The candidate must manipulate select and display the proper chart for the area and use the other nav aids to fix the location of the vessel on that chart. If the GPS is integrated into the plotter then candidates shall use the basic tools entering waypoints and creating routes	Given the plotter and/or operator's manual each candidate shall identify the charts loaded in the plotter and classify them (see list in EN 5 Know) . Each candidate will identify the chart datum and compare to the paper chart datum.	Given a familiar and functioning electronic chart plotter and the operator's manual each candidate shall activate and set-up the unit to display an appropriate chart for the area. If the GPS is integrated into the plotter then candidates shall use the basic tools entering waypoints and creating routes
Depth Sounder EN 7c.6	Each candidate will explain the limitations and accuracy of the depth sounder in certain circumstances Aeration of water High Speed	Each candiadte will activate the depth sounder and set it up to read the appropriate range in feet or metres	During practical demonstration each candidate will identify when the depth sounder is giving erroneous information.	Given and operating depth sounder each candidate will activate the unit and set it to the appropriate range and measure (feet or metres). Each candidate will call out the depth when necessary.
Basic Electronic Pilotage & Monitoring EN 7c.7	Candidates will identify the strengths and limitations of the electronic equipment on-board their vessel. They will identify when the Radar and GPS are most likely to give erroneous or misleading information and describe how to check the accuracy of the electronic data. Candidate will be familiar with the function and purpose of the controls of the radar as well as the functions and controls of the GPS/DGPS and plotter if (present). Each candidate will explain the importance of using all available means for lookout and navigation and identify the dangers involved in relying on only one or two sources of information (heads down).	The candidate shall use the Radar GPS and or Chart Plotter plus all available means to establish a safe course and steer the vessel on that course. The candidate shall identify landmass and targets on the radar and take appropriate actions to avoid incident. <u>Critical Actions/Steps:</u> <ul style="list-style-type: none"> ☞ Set-up waypoint and WPT display on screen. ☞ Give courses to helm and start vessel on leg ☞ Steer vessel to waypoint ☞ Select a change in destination whilst on a passage and modify the sail plan to accommodate this. ☞ Identify targets (steer to avoid stop if necessary) identify landmass ☞ Identify position on chart within (one cable) ☞ Identify WPT values for DTG and BRG vs. HDG ☞ Set range so WPT is on screen and easily steered too 	Given a familiar functioning radar and GPS along with operators manuals each candidate will explain, list or describe the following. Each candidate will state examples of when the following electronic equipment is vulnerable to significant error: <ul style="list-style-type: none"> ☞ Radar ☞ GPS ☞ DGPS ☞ Electronic Chart ☞ Depth sounder Each candidate will describe how to check the accuracy of the GPS, Chart plotter, and DGPS. Each will describe the capabilities of the radar in regards to Fixing a position	Given a familiar vessel equipped with radar, depth sounder and GPS in light to moderate wind and seas, day or night. While vessel is moving greater than five knots: <ol style="list-style-type: none"> 1. The candidate shall make a passage plan on a chart with at least 4 waypoints and enter those waypoints into the GPS and or chart plotter. 2. The candidate must be able to activate the route and give direction to the helm and keep the vessel on that planned route 3. The candidate must be able to follow a route and pass through at least four waypoints. 4. The candidate shall deviate form the route and return to it and reverse the route. 5. Each candidate shall add waypoints to a route and take them out. 6. The candidate shall use the radar tools to fix a position and translate that to the paper chart with an accuracy of 1/10 of nm twice. 7. The candidate must be able to use the radar tools to safely transit a passage at a controlled distance from shore.

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
<p>8.0 Towing Function</p> <ol style="list-style-type: none"> 1. Towing/SAP assessment & Communications 2. Towing gear inspection and use 3. Set up Approach and passing the line 4. Tow watch and line control 5. Towing Emergencies 6. Towing Alongside (RHI Specific) 7. Towing Salvage operations 	<p>Each candidate shall be able to explain the hazards involved with:</p> <ul style="list-style-type: none"> ☞ Lines under load and Line safety ☞ Safe working load of gear ☞ Loss of towline control ☞ Signs of towed vessel in trouble <p>Each candidate will be able to explain the steps and considerations involved in the following operations (see skills list)</p>	<p>Each candidate shall be able to safely and efficiently do the following crew tasks for towing evolutions:</p> <ol style="list-style-type: none"> 1. Towing/SAP assessment 2. Towing Communications 3. Towing gear inspection and use 4. Set up Approach and passing the line 5. Tow watch and line control 6. Towing Emergencies 7. Towing Alongside (RHI Specific) 8. Towing Salvage operations 	<p>During the operations each candidate will</p> <ul style="list-style-type: none"> ☞ List at least five questions to ask the vessel prior to towing. ☞ Explain the hazards involved in approaching and passing the tow line ☞ List at least two signs of a tow in distress ☞ Repeat the line control signals given by the coxswain. ☞ List actions to take in the event of towing emergencies 	<p>Given reasonable weather (light to moderate wind and sea) and another small (12-45ft) vessel. Each candidate will:</p> <ul style="list-style-type: none"> ☞ Participate in a SAP towing assessment ☞ Interview the tow before approach or communicate with the tow while underway Confirm pre-established communications with the coxswain ☞ Inspect and set up appropriate gear for the tow ☞ Set up towline and heaving line (If required) and pass off successfully ☞ Control towline surge out and take in ☞ Set up along side tow <p>Complete one of the three electives</p>
<p>Towing Assessment And Communications</p> <p>8.1</p>	<p>Each candidate shall participate In a Stop Assess and Plan protocol with the vessel to be towed.</p> <ul style="list-style-type: none"> ☞ The candidate will verbalise vessel characteristics and potential hazards on or around the vessel. ☞ Each candidate will list at least five of the questions asked during a pre towing interview (by radio or in person) ☞ The candidate will suggest a towing plan based on the information collected so far. ☞ Each candidate will repeat the commands/signals given in passing the line, controlling the line and emergencies. 	<p>Each Candidate will participate in a SAP assessment</p> <p>Each Candidate will conduct a pre-towing interview with at least five of the following questions.</p> <ol style="list-style-type: none"> 1. Is everyone all right and accounted for? 2. What is the nature of your problem? 3. Are you taking on any water? 4. How many people on board? 5. Please don your life jackets 6. What is your hull speed? 7. Where do wish to go? 8. What VHF channel are you monitoring? 9. Do you have a shaft brake? 10. Steering instructions 11. What kind of securing points do you have? 12. Are you able to receive out towline? <p>Candidates will use the coxswain's commands and signals during the tow operations</p>	<p>Given a vessel to use for example, Each candidate shall:</p> <p>Participate in a successful SAP assessment.</p> <p>List at least five of the previous interview questions or conduct the interview as outlined in the skill section.</p> <p>List the coxswain's commands and signals for towline pass off and line control.</p>	<p>Given reasonable weather (light to moderate wind and sea) and another small (12-45ft) vessel. each candidate will:</p> <p>Participate in a Successful SAP assessment of the tow</p> <p>Either answer questions outlined in Knowledge section or conduct a pre-tow interview and ask at least five of the question previously listed. (Or other directly relevant questions).</p> <p>Use the coxswain's commands and signals in the surging and taking in of a towline.</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Towing Gear 8.3	<p>Each candidate will be able to identify the following equipment and discuss its use.</p> <ul style="list-style-type: none"> ⚡ Heaving line ⚡ D or bow shackle ⚡ Axe or knife ⚡ Boat hook ⚡ Chafing gear ⚡ Tow assist hook ⚡ Towing bridle, drogue <p>Each Candidate will explain the equipment limitations (e.g. .S.W.L) and appropriate use</p>	<p>Each candidate will be able to inspect assemble/set up and use each of the following pieces of equipment.</p> <ul style="list-style-type: none"> ⚡ Heaving line ⚡ D or bow shackle ⚡ Axe or knife ⚡ Boat hook ⚡ Chafing gear ⚡ Tow assist hook ⚡ Towing bridle ⚡ Towing drogue <p>Each candidate will be aware of inappropriate use</p>	<p>When given a hypothetical vessel and situation each candidate shall apply the information given to choose the appropriate towing gear for that situation.</p>	<p>Elective or incidental Demonstration Only Given reasonable weather (light to moderate wind and sea) and another small (12-45ft) vessel. Each candidate will: participate in the safe and appropriate use of at least two of the items listed in the skill column.</p>
Towing Set up/ Approach and Passing the line. 8.4	<p>Each Candidate Shall describe the set up of the towline from storage to ready to pass. Each candidate shall explain the principles of line safety and line control Each candidate shall list the coxswain's commands and signals for the passing of the line</p>	<p>Each candidate shall ready the SRU's towline setting it up and prepare the necessary equipment to tow a vessel. Each Candidate shall ready the towline to be passed off to another vessel, using a heaving line if appropriate. Each candidate shall respond to the coxswain's commands and signals for the passing of the towline. Each candidate shall successfully pass the towline</p>	<p>Given a familiar CGA vessel each candidate will explain the steps and hazards to set up the towline to be ready to be passed off to another vessel. OR complete the skill standard for set up. Each Candidate will describe the fundamentals of line safety. Each candidate shall list the signals and command's used by the coxswain for passing the line and controlling the line Or use these signals in the successful performance of the skill.</p>	<p>Given the familiar CGA SRU each candidate shall set up the towline with due regard to line safety and pass it off to another vessel or representation of another vessel successfully. The commands and signals of the coxswain will guide this skill. If a skill demonstration is not practical then this competency can be tested by knowledge test.</p>
Tow Watch and Line control 8.5	<p>Each candidate will be familiar with the law regarding keeping a watch on a tow Each candidate will be able to recognise the signs of a tow in distress Each candidate will list the commands and signals for line control Each candidate will explain the terms <i>catenary</i> and <i>towing in step</i></p>	<p>Each candidate will diligently stand watch on the towed vessel and relay relevant information effectively to the coxswain.</p> <p>Each candidate will tend to a towline, following the signals and commands of the coxswain to surge out the line and take in the line. All steps will be performed using the basic principles of line safety</p>	<p>Candidates can be evaluated for these points by written test or oral questions during operations.</p>	<p>Given a vessel under tow (or reasonable simulation of lines under load), Each candidate shall watch the tow diligently, surge the line out and take the line in following the signals and commands of the coxswain.</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Towing Alongside 8.6	<p>Each candidate will be able to draw the line configuration for towing a vessel alongside</p> <p>Each candidate will explain the importance of the oblique angle and line tension in the effective control of the vessel being towed.</p> <p>Each candidate will list the signals and commands of the coxswain for line control and calling distance.</p>	<p>Each candidate, following the commands and signals of the coxswain, set up the lines for towing a vessel alongside.</p> <p>Each candidate will control the lines and adjust them for appropriate tension and angle.</p> <p>Each candidate will control the lines from both the vessel under tow and the SRU.</p> <p>Each candidate will use the coxswain's signals and commands to relay distances and other information while keeping a diligent watch.</p>	<p>Without references, Each candidate shall draw the line set up for towing alongside prior to commencing an exercise.</p> <p>The other knowledge statements can be evaluated through the successful performance of an alongside towing exercise.</p>	<p>Given reasonable weather (light to moderate wind and sea) and another small (14-45ft) vessel. Each candidate will: participate in a safe and successful alongside tow. Each candidate shall control lines and follow the coxswain's commands and signals to adjust lines and communicate relevant information to the coxswain while keeping a diligent watch.</p>
Towing Salvage 8.7	<p>Each candidate will explain the following strategies for assisting vessels;</p> <p>Swamped Aground Stuck at anchor Towing vessel on fire (Grappling hook)</p>	<p>Each candidate will locate and describe the use of the towing equipment (TWNG Competency 3) in the listed different situations</p>	<p>This knowledge can be evaluated through a tabletop scenario based exercise with a coxswain participating.</p>	<p>Elective or incidental demonstration only Given reasonable weather (light to moderate wind and sea) and another small (14-45ft) vessel. Will assist a vessel or simulation of a vessel in one of these listed situations: Swamped Aground Stuck at anchor Towing vessel on fire</p>
Towing Emergencies 8.8	<p>Each candidate shall explain the steps involved in the following operations</p> <p>☞ MOB off of vessel towed ☞ MOB off of CGA SRU ☞ Towed vessel sinking ☞ CGA SRU Girding</p> <p>Each candidate shall list the signals and commands used by the coxswain in the event of an emergency underway</p>	<p>Each candidate shall be prepared to act with a sense of urgency and follow the coxswain's commands and signals in the event of one of these contingencies.</p> <p>Each candidate shall perform the crew tasks involved in the recovery from the water skills.(RSCU Competency 2)</p>	<p>Candidates shall explain the steps involved in the listed emergencies when asked. This knowledge can be evaluated through a written test or by questioning.</p>	<p>Elective or incidental demonstration Given reasonable weather (light to moderate wind and sea) and another small (14-45ft) vessel. Each candidate will: participate in a safe and successful recovery of a MOB while under tow.</p>

Tasks	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
9.0 Function Search Crew Tasks within a Search Action Plan	Understand and relay the following search information: Search Action Plan message 6 parts Search Area information Search Unit action or roll Each candidate will recognise & relay a distress Each candidate shall identify various search patterns Each candidate will explain an effective sighting method	Search Action plan skills include: 1. Night search Vision & use of NVG's Search light use 2. Reporting 3. Electronic search (see radar) 4. Spotter & reporting skills 5. SAR Communications 6. Vessel OPS Steering the vessel Timing tracks & Relaying courses	Search action plan knowledge can be evaluated by written test questions or oral questions on-board. Given a search scenario in conditions of visibility and reasonable weather the search action plan knowledge can be demonstrated by the competent choice and performance of the skills	Given a familiar vessel and a scenario each candidate may demonstrate these skills during the course of a real or evaluative search exercise
Search Communications SRCH 9.1 Recognising, Relaying and Signalling a distress Page 50-51 Safe boating guide	Candidates shall explain the five parts of a SITREP and be able to relay that information. Candidates shall recognise all of the signals listed in annex IV of the collision regulations Candidates shall know the correct procedures for relaying a distress on VHF or other means of communication. (excluding Morse code)	The Candidate will be able to signal a distress. The Candidate will Recognise and Respond to a distress /// Signalling Describe the steps for using signalling gear in the appropriate circumstances /// Acknowledge a Radio Call, Gather and Organise information. Relay that information. /// Relay identification, situation, and action taken future plan and status of case in the form of an SITREP.	Knowledge of distress signals can be evaluated by a written test question. Knowledge of the VHF distress communications can be evaluated through competent performance of the skill.	Distress: This competency is recognised prior learning with holders of the Restricted radio operator's ticket. SITREP: given an ongoing mission scenario the candidate shall relay the five steps once successfully (assistance by coxswain is allowed)
Night Search SRCH 9. 2	Candidates shall understand the difference between central and peripheral night vision. Candidates shall be familiar with the operation of NVG's if on board	Candidates shall : Operate the NVG's according to manufacturer guidelines to spot and report an object in the water. Candidates shall operate a search light so as to avoid compromising the crews night vision	Knowledge of the NVG and searchlights can be evaluated through competent performance of the skill.	This competency may be evaluated during night operations in no-extreme conditions of weather or during low priority incidents/ mission (not M1)

Tasks	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Spotter Techniques SRCH 9.3	Candidates shall be familiar with the vulnerabilities of the eye and influences on vision.	Effective scanning movements within the block system are short regular eye movements spaced by two second intervals no more then ten degrees. Two methods of scanning: <ul style="list-style-type: none"> /// Side to Side /// Front to side /// Using Binoculars 	Knowledge of the vulnerabilities of the eye and influences on vision can be evaluated through by a written test question Knowledge of effective scanning movements and methods can be evaluated through by a written test question	Candidate participates as a spotter in a real or simulated search exercise successfully
Reporting a Target SRCH 9.4	The candidate will be familiar with one of the following methods for reporting relative directions: <ul style="list-style-type: none"> /// Clock Method /// Relative bearing /// Colour & degrees /// Point system 	The candidate will use one these methods to perform the following steps: <ul style="list-style-type: none"> /// Giving full attention to the target the candidate will report loudly what is seen and point to the object. /// The candidate will indicate the direction of the sighted object in a manner, which the other crewmembers understand and can orient to. 	Knowledge of spotter reporting systems can be evaluated by a written test question or through competent performance of the skill.	Given an object that is clearly visible to the spotter in any conditions. Given a relative point to represent the bow of a vessel or the bow of a vessel. The candidate will report the object once successfully.
Radar Search SRCH 9.5	Each candidate should have demonstrated comprehension and understanding of the limitations and the basic operation of small non-stabilised radar. Each candidate will explain the effects of the following on target detection. <ul style="list-style-type: none"> /// Distance and detection range (hight of antenna. /// Sea and Rain clutter interference /// Improper tuning and Gain 	Each candidate shall use the manufacturers instructions to : <ul style="list-style-type: none"> /// Turn on the radar /// Set the Range to the appropriate distance /// Adjust gain to obtain the best picture /// Check auto tuning /// Use Rain and Sea clutter if necessary. 	This knowledge can be evaluated through competent performance of the skill.	Given an object with a reasonable radar profile the candidate must: <ul style="list-style-type: none"> /// Use the radar to define and identify the reflected contact of the object /// Identify the general direction of the object with reference to the bow of the vessel.

Tasks	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Vessel Operations for Searching SRCH 9.6	Each candidate must be familiar with the legs and shapes of the following search patterns /// (SS) expanding square /// (VS) Sector Search, /// (CSC) Creeping line /// (PS) parallel sweep. /// Each candidates shall be familiar with the procedures for a shoreline search	Each candidate shall steer the vessel on a search leg and turn the vessel effectively on to the next course. Each candidate shall use the throttles to maintain a given vessel speed over the duration of the pattern. Each candidate shall time search legs and communicate new courses and signal the turn to the crewmember at the helm.	Knowledge of search patterns and leg headings can be evaluated by a written test Or drawn onboard during an exercise	Each candidate shall participate in at least one successful completion of a (SS), (VS) or (PS) search pattern.
			OR	Each candidate will act in the role of timing the legs and giving the helm orders, or steering the vessel on the pattern.

Performance Objectives

Tasks	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
10.0 Rescue 10.1 SAP Assessment 10.2 Recovery 10.3 Treatment & Transport 10.4 Fire fighting 10.5 vessel dewatering 10.6 Damage control 10.7 Helo operations 10.8 Boarding	Understand and Relay the following parts of rescue action plan: Situation, Rescue Area, Execution, Co-ordination & Communications. Each candidate shall have the operational and safety knowledge to perform the follow Rescue action plan tasks: 1. Assessment 2. Recovery, 3. Transfer Treatment and Transport of persons 4. Fire Fighting 5. Helo Operations 6. Emergency Vessel Salvage	Rescue Actions include: 1. Fire fighting 2. Recovery, 3. Treatment Transport and Transfer of persons 4. Helo Operations 5. Vessel Dewatering 6. Damage Control	Knowledge of equipment, procedures and protocols can be evaluated through a written or oral test questions. Knowledge of equipment, procedures and protocols can be evaluated through competent performance during scenarios set up for evaluation and practice purposes.	The Skills can be evaluated through a scenario-based exercise or during an actual incident where that skill was demonstrated fully. The skills can be evaluated through specific drills designed to focus on individual tasks.
SAP Assessment RSCU 10.1	Each candidate shall explain the steps involved in a SAP assessment and describe the terms event zone and two way communication	Each candidate shall participate in all the steps of a SAP scene assessment and verify their assigned responsibilities in a rescue plan using the principles of two-way communication. These candidate will communicate their actions and relevant steps throughout the execution of a plan	Given a table top scenario, each candidate will explain the SAP assessment and list the steps involved. They will create an action plan based on information given and describe the steps involved in two way communication. OR	As a member of a familiar Auxiliary vessel an given a real incident scene or exercise scenario each candidate shall participate in an effective SAP assessment and verify their assigned responsibilities in a rescue plan using the principles of two-way communication. They will also verbalise appropriately (see column 2)

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Recovery RSCU 10.2	<p>Each Candidate shall identify the steps for and dangers involved in recovery operations such as</p> <ul style="list-style-type: none"> ☞ Recovering person's from a vessel, in heavy seas, on fire, Sinking ☞ Recovering person's from the water ☞ Recovering person's from shore <p>Each Candidate will explain the risks of mishandling a severely hypothermic patient during recovery.</p>	<p>Each candidate shall perform the different roles involved in the following recovery actions. Recovering persons from the water:</p> <p>Spotting, Raising the alarm and spotter duties relaying information to the driver, using effective means</p> <p>Driving the vessel Crew Over Board! Driving skills</p> <ul style="list-style-type: none"> ☞ Turn using best method for returning to original track ☞ Get the vessel downwind/ down current or down swell with bow into dominant conditions at a fair distance from the person in the water ☞ Stop Assess Plan ☞ Approach and recover ☞ Can use life lines or life buoy to recover ☞ Will need a re-boarding device for gunwales over 0.5 of a meter 	<p>Candidate's knowledge of recovery operations involving other vessels or the shore can be evaluated with a written or oral test or scenario.</p> <p>Candidates knowledge of person in the water recovery operations is best evaluated through competent performance of the skill.</p>	<p>Given light to moderate winds and a person or OSCAR in the water, the candidate shall participate in the successful recovery of a person in the water. This skill can be included in a standard MOB exercise.</p> <p>Given a scenario using a real vessel or shoreline for visual reference, a candidate shall describe the steps involved in the recovery of person's off of a vessel or the shore.</p>
Treatment Transport and Transfer of persons RSCU 10.3	<p>Each Candidate will list the steps to basic life support (CPR) as outlined in the Marine Emergency/Standard First Aid course.</p> <p>Each candidate will be able to locate and explain their vessel's patient transport equipment. And Securing system.</p> <p>Each Candidate will list a pre-established set of commands used by crew when transferring a patient.</p>	<p>Each Candidate shall be able to perform the basic steps of life support as outlined in the Marine Emergency/Standard First Aid course.</p> <p>Each candidate will be able to locate and set up a CGA vessel's patient transport equipment, and securing system. The patient shall be secured in a manner that allows for quick release in case of an emergency yet secured sufficiently to immobilise injuries and prevent excessive movement during transport.</p>	<p>Candidate's knowledge of basic life support is recognised prior learning through a current first aid ticket.</p> <p>A candidate's knowledge of patient immobilisation and secure for transport is best evaluated through competent performance of the skill.</p> <p>Each candidate shall be explain the hazards of patient transfer to other vessels</p>	<p>Given a patient and a transport Stretcher/immobilisation device each candidate shall immobilise injuries and secure the patient for transport. They will be able to explain the risks and dangers involved in transport and transfer in different situations.</p>
Fire Fighting RSCU 10.4	<p>Candidates shall list the three situations Candidates shall be able to differentiate between the classes of fires and the extinguishing agents that are effective against them.</p> <p>Candidates shall be able to list the steps in operation of the following equipment:</p> <ul style="list-style-type: none"> ☞ Fire extinguishers (types on Board) ☞ Fire pump hose and nozzles 	<p>Candidates shall operate the following equipment:</p> <ol style="list-style-type: none"> 1. Portable or Mounted Fire Pump: <ul style="list-style-type: none"> ☞ Set up in appropriate place (portable), ☞ Check fuel & oil ☞ Attach hose & nozzle and assign control person to nozzle ☞ Adjust fuel, choke and spark to start ☞ Start and adjust pump for desired output. 2. Fire Extinguisher: <ul style="list-style-type: none"> ☞ Pull pin and safety strap off of handle ☞ Direct at base of appropriate class fire ☞ Discharge with sweeping motion to effectively control fire. 	<p>Knowledge of fire equipment, procedures and protocols can be evaluated through a written or oral test questions.</p> <p>Knowledge of fire equipment, procedures and protocols can also be evaluated through competent performance during scenarios set up for evaluation and practice purposes</p> <p>Fire Extinguisher NOTE This skill does not need to demonstrate. The steps can be explained</p>	<p>Given, reasonable weather (light moderate winds) and the equipment that is familiar to the candidate, the candidate shall prepare and operate the fire pump effectively at least once.</p> <p>Evaluation can be done during an evaluation exercise or by observed demonstration at any time. Disassemble clean and flush equipment Fire Extinguisher NOTE This skill does not need to demonstrate. The steps can be explained</p>

Tasks & references	Standard		Conditions for Evaluation	
	Knowledge	Skills	Knowledge	Skills
Vessel Dewatering RSCU 10.5	<p>Each candidate shall be able to locate all the dewatering equipment on board the SRU and describe its use.</p> <p>Each Candidate shall locate and describe the safe operation of the salvage/fire pump and all fittings for dewatering</p>	<p>Each Candidate shall be able to operate all dewatering equipment of the SRU.</p> <p>Each Candidate shall be able to set up and operate the salvage/fire pump: Portable or Mounted Fire Pump: // Set up in appropriate place (portable), // Check fuel & oil // Attach suction hose & and assign a monitor to suction and output // Adjust fuel, choke and spark to start // Start and adjust pump for desired output.</p>	<p>Candidates knowledge of salvage and damage control operations is best evaluated through competent performance of the skill.</p> <p>Given a scenario the candidates shall explain possible strategies for damage control and dewatering of a vessel.</p>	<p>Given a period of ten minutes a Candidate shall set up and operate the SRU's salvage pump effectively</p> <p>Each candidate shall locate and operate any other dewatering devices on board the SRU Disassemble clean and flush equipment</p>
Damage Control Operations RSCU 10.6	<p>Each Candidate shall describe the safe working loads and proper guidelines for all rigging or tackle on board Candidates will be able to locate and identify tools and objects on board that could be used to plug or patch a hole on a stricken vessel.</p>	<p>No skill demonstration required</p>	<p>Given items such as a collision mat or tarp and a wooden plug and rags a candidate will describe the appropriate action in an appropriate situation.</p>	<p>No skill demonstration required</p>
Helicopter Operations RSCU 10.7	<p>Each Candidate shall explain the danger of static charge build up on the lift line. Each Candidate shall understand all pre-established hand or voice signals between helicopter and SRU.</p>	<p>Each Candidate shall be able to secure the vessel decks and equipment for Helicopter operations. Each candidate will use pre-established signals appropriately during helicopter operations.</p>	<p>Candidates knowledge can be tested by written exam or oral questions during exercise.</p>	<p>Given a hoisting exercise the candidates shall participate in the pre-hoist safety briefing, secure the vessel for operations and communicate efficiently during the exercise.</p>
Boarding RSCU 10.8	<p>Each Candidate explains the situations in which a CGA vessel would board another vessel moving or stopped.</p> <p>Each Candidate shall list the signals pre-established by the coxswain prior to boarding another vessel.</p> <p>Each Candidate shall be able to identify possible hazards onboard another vessel</p> <p>Stop Assess and Plan with the team before boarding</p>	<p>Each candidate will confirm with the coxswain/captain the signals and boarding plan before commencing</p> <p>Each Candidate will get confirmation to board from the coxswain before stepping off the vessel.</p> <p>Each candidate, (if the boarded vessel is higher), will step off at the top of the rise and move from one vessel to the other in one quick motion.</p> <p>Each candidate will pass gear over to the other vessel prior to or after boarding the vessel.</p>	<p>Each candidate will repeat and confirm the coxswain's signals before commencement of boarding.</p> <p>Given a live scenario each candidate will explain the parts of the operation that present the greatest risk to injury. Stepping off the vessel Leaning over the side Passing gear over Effects of the weather on boarding operations Candidates knowledge of boarding operations is best evaluated through competent performance of the skill</p>	<p>Given reasonable weather (light to moderate wind and sea) and another small (12-45ft) vessel, stopped or moving slowly (2-5 knots) Each candidate will: Participate in a SAP assessment // Communicate with coxswain and confirm signals // Ready gear for transfer // Get confirmation from coxswain // Confirm the permission of the vessel's owner/operators // Transfer Gear // Step on-board in one swift move // Confirm all gear is secure and vessel is safe.</p>