Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
Vessel Terminology and Characteristics	• Members must know the appropriate terms and components of a vessel • Definitions used to describe direction, locations and structural components of a small vessel • Know the basic terminology used in small vessel construction • Knowledge of the construction requirements and standards for small vessels • Know how to maintain your small vessel • Knowledge of the vessel arrangement and of the functioning of all the systems and devices on board (Drainage and Pumping or bailing system)	RQ	RQ		All crewmembers shall know the various parts of the vessel and use the appropriate terminology
Vessel hull types and configurations	Knowledge of the nature of displacement and planning hulls	X	X	Describe: • an open vessel • an enclosed hull vessel • an inflatable rescue craft • a catamaran • other hull types • Each crewmember shall define and explain the terms that describe directions on a vessel:	• Each crewmember will use the directional terms during the demonstration of the skills of the boat handling function. During the demonstration each crewmember shall use the correct terms to describe direction and various aspects of

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
				• Forward, Aft, Abaft. Port, Starboard, Beam, Amidships, athwartships, Aloft, Inboard and outboard. • Each crewmember shall define the following terms: • Draft. Hatch, Ballast, Bollard, Sponson, freeboard, Pitch, roll, transom, chimes, engine well, bulkhead, stringers, void space, strut, cavitation plate, skeg, and keel. • Each crewmember shall explain the concept of hull speed and its effect on displacement vessels. • Each crewmember shall explain the effect of wetted surface and hull drag in the terms of a planning hull.	the vessel as it is operating.

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
Vessel Construction	The crewmember will identify and discuss displacement and planning hull shapes. Will be able to apply vessel construction knowledge and terminology during SAR operations and during stability assessment			The crewmember will describe the basic actions of displacement and planning hulls through water and the basics of hull speed. Identify the components of a small vessel • transom • keel • sheer clamp • chine log • stem, etc. • Understand principles in a case of emergency repair of the major construction elements and materials used in vessel • Explain how the major construction elements and materials used in each vessel design apply to vessel operations • Describe the configuration and arrangement of space,	Maintain constant vigilance in recognition of construction issues with the SAR vessel and the incident vessel. Show a respect for the construction limitations of your vessel.

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
				divisions, vessel systems and equipment • Identify construction features of client vessels that may have a bearing on operations	
Propulsion systems and forces acting on a vessel	• Understand environmental forces acting on a vessel • Understand effect of shaft on vessel movement • Understand effect of propeller on vessel movement • Understand effect of rudder on vessel movement • Understand the effect of outboard motors and stern drives on vessel movement • Understand the effect of motor jets on vessel movement (if applicable)	RQ	RQ	Describe the various propulsion systems available for small vessels, including: • outboard motors • stern drives • inboard engines • jet drives Explain basic engine starting and shut down procedures Describe engine and propulsion systems surveillance and monitoring required and actions to be taken in case of emergency, fault or alarm	
Vessel Inspection	Crewmembers shall determine whether a vessel meets	RQ	RQ	• Crewmembers shall identify	Each member shall be familiar

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
	minimum requirements according to the Small Vessel Regulations. Inspect these items: • Personal Protection Equipment • Boat Safely Equipment • Distress Equipment • Navigation Equipment • Maintenance of SRU ▪ Safety inspections ▪ Readiness Inspection ▪ Routine maintenance ▪ Tools/spares			the required safety equipment for the size of vessel they are working with. • Each crewmember shall also use a check sheet to successfully inspect the vessel for mechanical and structural status. • In accordance with regulatory and regional requirements, standard operating procedures and using applicable 'check lists' • In accordance with the practice of good seamanship	with the state of the vessel and the routine maintenance and inspection of the equipment on board. Given a familiar vessel, each crewmember shall participate in an effective and thorough routine inspection of the vessel using a checklist. Modify/repair/maintain equipment as required to ensure SRU remains operational
Maintain Operational Readiness	Maintain vessel readiness	RQ	RQ	• Define operational readiness • Describe the responsibilities of the coxswain/captain in maintaining the state of readiness	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
	Knowledge of preventative maintenance systems			• Describe the role of regional personnel who assist the vessel coxswain in maintaining the state of readiness • Explain the link between maintenance and readiness • Explain the CCG regime for the maintenance & repair of small vessels • Describe the vessel coxswain/captain role in maintenance and inspection • Describe the vessel crewmember role in maintenance and inspection • Describe the daily inspection (D.I.) routines • Describe a preventative maintenance system (PMS) • Explain the reasons for a	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
				means of keeping records of maintenance and inspection • Explain the link between maintenance and readiness • Explain the CCG regime for the maintenance & repair of small vessels • Describe the vessel coxswain/captain role in maintenance and inspection • Describe the vessel crewmember role in maintenance and inspection • Describe the daily inspection (D.I.) routines • Describe a preventative maintenance system (PMS) • Explain the reasons for a means of keeping records of maintenance and inspection	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
	Maintain standards for repair and refit Promote prevention corrosion			• Explain the need for a check list within the vessel lifecycle management system • Discuss Corrosion Prevention Systems out boards engines • Discuss the causes of different types of corrosion in both aluminum and steel • Discuss precautions to be taken to prevent corrosion on aluminum and steel • List known corrosion problem areas on vessels • Perform a visual inspection for corrosion	
Maintain SAR Gear	Demonstrate the ability to maintain and care for the equipment and clothing: • Rinsing the gear with water • Folding and stowing in a dry place • Washing it	RQ	RQ	Each crewmember shall identify the following substances as enemies of safety gear: • Wear and damage • Grease	Each member shall list items listed in the knowledge box. The member should demonstrate more than once any of the listed steps by the

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
	• Inspecting for damage and replacing damaged gear			• Mold • Mildew	end of the course and take action to prevent damage to equipment and gear.
SAR Damage Reporting	Crew will keep track of any major mechanical failures or damage using the vessel log along with transferring that information into a maintenance log.	RQ	RQ	Each crewmember shall know how to use the vessel maintenance manuals and the reporting system in regard to work done on the vessel and the unit procedures regarding it.	Crewmembers will update maintenance manuals and logs and ensure all amendments to manuals are kept up to date.
Maintaining Stability	• Crewmembers will be able to assess and recognize the signs of vessel instability and take immediate action to secure the scene or remove people from the risk. • The crewmember should be challenged to relate these factors to a vessel being towed.	RQ	RQ	• Explain the basic principles of vessel stability • Define stability • Define displacement • Define center of gravity • Define center of buoyancy • Define reserve buoyancy • Explain the concept of equilibrium with regard to vessel stability • Distinguish between transverse and	Maintains constant vigilance in recognition of stability issues with the SAR vessel and the rescued vessel.

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
				longitudinal stability • Evaluate undesirable stability conditions for small vessels • Define moment as it applies to vessel stability • Define righting position • Define capsizing moment • List vessel design features that influence stability • Explain the effects of loading on vessel stability • Discuss the potential dangers of assisting a vessel with damaged stability • Understand Freeboard • Know the Warning signs of instability • Understand the hazards of Free Surface Effect • Understand the hazards of loose water on deck	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
				• Understand the principles of vessel stability and precautions when loading and unloading weights • Know the effects associated with vessel load distribution and trim • Know the hazards associated during icing conditions • Understand the principles of freeboard and effects of fresh and salt water • Know the importance of maintaining watertight integrity • Understand the requirement for proper stowage of equipment and cargo • Understand the concept and the importance of reserve buoyancy • Explain free surface	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
				effect and possible corrective measures • Explain the effects of icing and possible corrective measures • Explain the effects of down flooding and possible corrective measures Must have knowledge in vessel stability including centre of gravity, centre of buoyancy, free surface effect and righting lever. The crewmembers must have a basic "working" knowledge of the factors that affect his particular working vessel.	
Safety Management	• Integrate safety in all operational practices, using problem recognition, identification of risks, analysis, and problem solving that mitigates or manages risks. • Ensure crew is aware of the risks and that they are to mitigate/manage them, and subsequent supervision of	RQ	RQ	• Be aware of all hazards present, and know how to mitigate or manage them. • Understand CCGA regional operating procedures and	• Ensure competent crew are directed to undertake risk-managed activities and will assume the role of support and supervision in

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
	the crew to ensure safe working practices. • Identify and report all procedural deficiencies.			how these procedures are intended to manage risks to the crew, vessel, and mission. Have working knowledge of regional CCGA Safety Management System.	the performance of those tasks. • Run a safe operation by monitoring the situation and intervene to correct an unsafe action or situation.
Conduct Emergency Operating Procedure	Respond to the abandoning of the vessel	RQ	RQ	• Explain the emergency procedure for abandoning own vessel • Perform an abandon ship scenario as per the vessel specific emergency procedures	
	Respond to a fire	RQ	RQ	• Explain the emergency procedure for responding to a fire in the engine room on own vessel • Perform a response to a fire in the engine room scenario as per the vessel specific emergency procedures • Perform a response to a fire (other than E/R) as per the	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
				vessel specific emergency procedures	
	Respond to flooding onboard	RQ	RQ	• Explain the emergency procedure for responding to a flooding onboard own vessel • Perform a response to flooding onboard own vessel as per the vessel specific emergency procedures	
	Respond to grounding of own vessel	RQ	RQ	• Explain the emergency procedure for responding to a grounding of own vessel • Perform a response to a grounding of own vessel as per the vessel specific emergency procedures	
	Respond to collision of own vessel	RQ	RQ	• Explain the emergency procedure for responding to a collision of own vessel • Perform a response to a	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain Captain	Crew		
				collision of own vessel as per the vessel specific emergency procedures	
	Respond to an electrical failure	RQ	OPT	• Explain the emergency procedure for response to an electrical failure on own vessel • Perform a response to an electrical failure on own vessel as per the vessel specific emergency procedures	
	Respond to roll over of own vessel	RQ	RQ	• Explain the emergency procedure for response to a rollover of own vessel • Describe the factors to be considered following a capsizing event on a self-righting vessel • Perform a response to a vessel rollover as per the vessel specific emergency procedures	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
	Respond to engine failure	RQ	RQ	• Explain the emergency procedure for response to a main engine failure on own vessel • Perform a response to a main engine failure on own vessel as per the vessel specific emergency procedures	
	Respond to throttle failure	RQ	RQ	• Explain the emergency procedure for a throttle control failure on own vessel • Perform a response to a throttle control failure on own vessel as per the vessel specific emergency procedures	
	Respond to navigational equipment failure	RQ	RQ	• Explain the emergency procedure for response to a navigational equipment failure on own vessel • Perform a response to a	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
	Respond to crew injury or illness	RQ	RQ	navigational equipment failure on own vessel as per the vessel specific emergency procedures • Explain the emergency procedure for response to a crew injury or illness on own vessel • Perform a response to a crew injury or illness on own vessel as per the vessel specific emergency procedures	
	Respond to person overboard of own vessel	RQ	RQ	• Explain the emergency procedure for responding to a person overboard from own vessel • Perform a response to a person overboard on own vessel as per the vessel specific emergency procedures	
	Respond to steering failure	RQ	RQ	• Explain the emergency	

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
				procedure for response to a steering failure on own vessel • Perform a response to a steering failure on own vessel as per the vessel specific emergency procedures	
Effect emergency repairs to ships structure at sea, to maintain watertight integrity	Crewmembers will be able to assess the various systems on board the vessel and carry out emergency repair in areas such as fluid leaks, electrical shorts or loose wires, tightening fittings, and installation of spares. Knowledge of : • ships layout: pipes, tanks and spaces Ability to: • make emergency repairs .	RQ	OPT	Crewmembers will have a thorough knowledge of the primary systems on the vessel and list the steps for emergency repair for all of the systems.	• Advanced crew will monitor various systems while underway, bring attention to any concern of any system, and take appropriate action to resolve the concern. • Appropriate methods are used to maintain watertight integrity in emergency situations
Capsize and Re-Righting (FRC if applicable)	• In the event of a capsize, collect and count the crew, check for injuries, initiate the re-righting sequences and follow post capsize procedures. • Indicate that your vessel is in distress.	RQ	RQ	• List and explain the capsize and post capsize procedures for your vessel. • Explain the SARSAT system,	• Be able to determine when the activation or the EPIRB is essential to circumstances for the

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
	• Demonstrate and simulate the activation of an EPIRB (if fitted) onboard the vessel.			its components, accuracy of two classes of EPIRBs. • Advantages/disadvantages or both systems. Know when to activate the EPIRB and how/when to have the battery replaced.	safety of the crew. • Be cognizant that this equipment may be accidentally activated and be able to advise the correct agencies to cancel the false alert. • Be diligent in the examination and inspection of the equipment.
Firefighting Equipment	Crewmembers will be able to inspect, maintain, and operate a fire salvage pump, fire extinguishers, and any other firefighting equipment on board the vessel. He/she will lead fire drills on board the vessel and direct the crew to their prescribed duties.	RQ	RQ	Crewmembers will list the location and state of all or the firefighting equipment on board the vessel as well as: • Required basic fire science chemistry • Causes of vessel fire-prevention • Understanding classification of fires/extinguishing agents • Suppression Systems	• Routinely and carefully inspect and test the firefighting equipment on board the vessel and conduct regular drills. • Proactive fire prevention onboard; educating crew on fire dangers and firefighting practices

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required		Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
		Coxswain	Crew Captain		
				• Safe firefighting practices • Drills for environmental protection	
Take part in fuelling operations.	Knowledge of: • potential safety and pollution hazards, precautions and procedures for fuelling the vessel; • vessel's fuel tanks and associated piping; • Capacities and locations of the fuel tanks and associated piping; • potential safety and pollution hazards, precautions and procedures for fuelling and supplying light stations; and general knowledge of reception facilities (piping, drainage devices, vents, calibration of tanks); • thorough knowledge of land and marine reception facilities; • cargo planning and stowage; • limitations of boats and barges used in the operation; • landing conditions and facilities at specific light stations; • fuelling and supply procedures at specific light stations. Ability to: • sound tanks; • operate pumps;	RQ	RQ	Each crewmember shall identify the correct actions to take in the event of fuelling emergencies. Emergencies while fueling: • Major or minor spill • Fire on vessel • Fire on fuel dock • Injury	• Fuelling operations are carried out in accordance with oil Pollution Prevention Regulations. • When asked, crewmembers shall list the actions to be taken in the event or emergencies while fuelling. • Each crewmember shall participate in a safe fueling exercise on board a vessel and successfully complete at least four of the steps listed in the Skills Column.

Competence (Skills)	Knowledge, Understanding and Proficiency	Level Required Coxswain	Crew Captain	Methods for Demonstrating Competence (Qualification Standard)	Criteria for Evaluating Competence (Performance Standard)
	• rig and drain fuelling hoses; and carry-out visual; inspection of receiving facilities and control minor leaks; • check hoses for leaks. Each crewmember shall list at least four of the steps to sale fuelling and participate in a safe fuelling of a familiar vessel: • Moor or secure the craft; • Shut down engine(s); • All people not fuelling go ashore; • No smoking and extinguish all flame sources; • Do not overfill; • Switch off bilge pumps and any live electrical circuits; • Close all doors. windows and ports; • Remove portable tanks; • Ground nozzle; • Clean up spillage; • Check for vapors; • Use checklist on paper or overhead; • Activate blower (if applicable) for minimum of 4 minutes.				