

# POLAR QUALIFICATION

## Driving Small Boats/Zodiacs

2020 Edition



**POLAR  
TOURISM**  
Guides Association

guiding guiding



### DEFINITIONS:

- Scope:** Outlines who the test is for.
- Element:** Outlines the overall **skill set** to be tested.
- Range:** The **specific skills** to be examined. An examination **may or may not** include all of the range items. It is at the discretion of the Assessor if the Assessee shows confidence and ease in other range items as to whether they examine them or not.

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**SCOPE:** This award is for personnel driving small boat/zodiacs to support a land or ship based operation.

- Special Notes:*
- i. *This PQ is considered the operational level required to be able to drive small boat/zodiacs with and without passengers in moderate conditions not more than 3nm offshore or from an attending vessel.*
  - ii. *A small boat/zodiac is an inflatable or hardshell vessel 7m or less with an outboard motor/s that may be driven by a tiller or center console.*
  - iii. *This award is a valuable and viable assessment and qualification for crew and shipping company staff driving small boat/zodiacs as part of their job in any region.*
  - iv. *The Polar Endorsement (see Advanced Endorsements) is strongly encouraged for any staff working in polar regions.*
  - v. *This award does not dictate whether the small boat/zodiac is a pull start or electric start.*
  - vi. *The PTGA encourages all guides driving small boats/zodiacs to have a personal throw bag and know how to use it.*

- PREREQUISITES:**
- PQ Working with Small Boats/Zodiacs.
  - >15 logged excursions as sole charge driver.
  - Current First Aid Certificate.
  - PQ Communications for Polar Operations.
  - PQ Navigation Skills for Polar Operations.

**CROSS CREDIT:** Any internationally recognized qualifications that include components to the level of the Scope or higher. See Cross Credit Matrices.

## **ELEMENTS & PERFORMANCE CRITERIA:**

### **Element 1 – Personally prepare for driving operations.**

#### **1.1 Demonstrates personal preparedness and professional presentation.**

*Range:* Suitable attire for conditions, personal clothing and equipment maintained and organized, type of PFD chosen for its uses and limitations (understands the reasons for/options to wear waders or a dry suit), radio suitably protected and attached, spare crucial clothing items for self or passengers, knowledge of expected conditions and operating locations, navigation device or strategy, sunscreen.

### **Element 2 – Prepare and check a small boat/zodiac for driving operations.**

#### **2.1 Demonstrate ability to pre-check the zodiac/small boat and start engine.**

*Range:* Zodiac safety equipment, check inflation valves set to navigation, air vent on fuel tank open, pump fuel, check kill cord attached and spare available, adjust throttle, water running through cooling system, battery connections, idles engine until warmed up, check for bow or other lines in the water.

#### **2.2 Demonstrate ability to lower engine, use and check for engine locking mechanism.**

*Range:* Engine specific.

### **Element 3 – Drive a small boat/zodiac for basic operations transporting passengers to shore, ship or to cruise.**

#### **3.1 Demonstrate efficient management of self and passengers while operating a small boat/zodiac.**

*Range:* Physical and verbal control of any passengers during activities and transition zones (a transition zone is any time or activity where people are moving from one state to another and coming into, or leaving a drivers control), ability to communicate effectively with passengers, ability to understand passenger requests or questions.

#### **3.2 Demonstrate safe driving manoeuvres in a range of conditions.**

*Range:* Attach kill cord, engage forward and reverse gears, smooth use of throttle, driving positions standing and seated, forward turning left and right, reversing left and right, ability to use gears and steering to spin the small boat/zodiac in tight area (<double boat length), ability to hold small boat/zodiac in position with wind and/or current, ability and confidence to drive small boat/zodiac on the plane with and without passengers.

#### **3.3 Demonstrate MOB briefing and rescue procedures.**

*Range:* Briefing, rescue of a person, use of throw bag, use of assistance stirrup or ladder, self rescue.

- 3.4 Demonstrate ability to drive a small boat/zodiac to a landing and have strategies for different water depths and types of approach.**  
*Range:* Asking for prior information, correct speed for conditions, shallow drive, disengage gear, stop engine, lift engine.
- 3.5 Demonstrate ability to push off from a landing and drive away.**  
*Range:* Push off and get in small boat/zodiac, controlled lowering of engine, start engine, reverse away, turn and drive away.
- 3.6 Demonstrate ability to approach a gangway/platform/pier and load/unload passengers.**  
*Range:* Communicate with ship, check for current, wind or thruster influence, not 'wake' other small boat/zodiacs or self, controlled approach, safe docking and line attachment, tiller raised and clear of people, communication about requirements to passengers, system for checking PFD compliance, controlled loading or unloading of passengers, detachment of lines, drive away.
- 3.7 Demonstrate ability to transfer passengers safely to another small boat/zodiac on the water.**  
*Range:* Positioning, methods of connection, communication of procedure to passengers.
- 3.8 Demonstrate knowledge of strategies for driving safely alone or in pairs when distant from ship, shore or in limited visibility.**  
*Range:* Driving in pairs, regular radio contact, line of sight, use of GPS map or other mapping applications, use of wind/wave direction.

#### **Element 4 – Anchor, attach a small boat/zodiac to shore, ship or other small boat/zodiac safely and efficiently.**

- 4.1 Demonstrate strategies and/or theory of anchoring, tying or clipping a small boat/zodiac.**  
*Range:* Using anchor, strategies for anchoring, clipping to another boat, engine up, paddle twist in hand lines, tying around a fixed object onshore.
- 4.2 Demonstrate knots for small boat/zodiac use.**  
*Range:* Bowline, round turn and two half hitches, double half hitch on bight, clove hitch.

#### **Element 5 – Towing or being towed.**

- 5.1 Demonstrate strategies and theory for towing (or being towed) another small boat/zodiac or vessel.**  
*Range:* Approaching vessel, three different methods of attaching and advantages and limitations of each, alongside vs behind, short distance vs long distance.

## **Element 6 – Solve basic issues with engine to ensure safety and time efficiency.**

### **6.1 Demonstrate ability to problem solve basic engine problems.**

*Range:* Disconnected fuel line, kill cord unattached, battery connections checked, fuel tank ran dry.

### **6.2 Demonstrate ability to deal with pontoon puncture.**

*Range:* Explains strategies to transfer air around pontoons and reasons why you would and would not do it.

## **Element 7 – Have knowledge of how to right a flipped small boat/zodiac.**

### **7.1 Access resources (YouTube, Manuals, experienced staff, Courses) and have knowledge about the method and risks associated with righting a capsized small boat/zodiac.**

## **Element 8 – Demonstrate knowledge of Regulations and Legal Requirements for Operators of Zodiacs/Small Boats.**

*Range:* Relevant to local area, COLREGS, navigation leads, channel bouys, operating in harbors and jetties.

# Advanced Driving Endorsements

**SCOPE:** Advanced Driving Endorsements are additional skill and knowledge sets for professionals and crew small boat/zodiac operators working in polar regions or more demanding conditions. These people are able to support some, or all, of the more demanding facets of ship and land based operations in polar and non-polar regions that use small boats/zodiacs. A driver seeking Endorsements will have fulfilled all requirements and pre-requisites for PQ – Working with Small Boats/Zodiacs and Driving Small Boats/Zodiacs.

**PREREQUISITES:**

- >10 excursions in the endorsement field (except #7 where the activity or training has to be undertaken once).
- PQ Driving Small Boats/Zodiacs and all relevant pre-requisites for this award.

**CROSS CREDIT:** Any internationally recognized qualifications that include components to the level of the Scope or higher. See Cross Credit Matrices.

# Endorsement 1 – Polar Operations.

## SCOPE:

The Polar Endorsement is for drivers operating in the polar regions and dealing with the particular environmental risks and wildlife sensitivity issues these places require. This endorsement is strongly encouraged for drivers who wish to operate small boats/zodiacs in the polar regions.

*Special Notes: i. Drivers working regularly around glacier faces and ice fronts are encouraged to have a personal range finder or strategies to confirm exactly how far from these features they are.*

## PERFORMANCE CRITERIA:

- 1. Demonstrate ability and strategies for driving in brash ice.**  
*Range:* Understanding of risks, route selection, picking leads, appropriate speed, weight distribution, strategies for clearing ice from prop or under hull.
- 2. Demonstrate knowledge of set industry guidelines and situational strategies for small boat/zodiacs around/in environmental hazards.**  
*Range:* Ice bergs, glaciers, overhanging rock walls, glacier faces, fog, upwind of ice edges, waves generated by calvings.
- 3. Demonstrate knowledge of set industry guidelines and situational strategies for small boat/zodiacs around wildlife.**  
*Range:* Individual and group strategies for approaching and/or observing whales/bears/seals/birds.
- 4. Understands and able to assess sea/ice conditions against personal skills and the right of a driver to decline to be involved if they are not comfortable.**

## Endorsement 2 – Support a polar auxillary water activity (sea kayaking, SUP).

**SCOPE:** This endorsement is for guides/field-staff who run/support all aspects of an auxillary program. To gain the endorsement you must be tested in all the Elements.

### PERFORMANCE CRITERIA:

- 1. A group is loaded from a small boat/zodiac into sea kayaks or other craft.**  
*Range:* Positioned appropriate to conditions and skills, embarkation/disembarkation, procedure is explained, group is controlled, loading method.
- 2. Kayaks or other craft are transported on/by a small boat/zodiac.**  
*Range:* Towing system used, carrying system used, understands limits of small boat/zodiac and risks involved, drives to weather/sea conditions.
- 3. The role of a small boat/zodiac in supporting a recreational craft excursion is explained.**  
*Range:* Following/support distance is appropriate to conditions, any wildlife considerations and group skill, situational requirements discussed with group guide, ability to work on different radio channel.
- 4. Assist in a rescue and recovery of kayak and/or swimmer.**  
*Range:* Safe approach, positioning of small boat/zodiac relative to wind/waves/victim, strategies for getting victim into small boat/zodiac.

# Endorsement 3 – Drive small boat/zodiac safely in strong winds (>30kts).

## SCOPE

This endorsement is designed for skilled and experienced drivers who can support an operation in strong or non standard operational wind conditions in polar or non polar waters.

## PERFORMANCE CRITERIA:

**1. Drive a route to and from shore.**

*Range:* Winds up to but not exceeding 40kts, control of small boat/zodiac, choice of route dependent on waves/wind/swell, a range of driving stances, use of features to provide shelter.

**2. Explain safety strategies for driving in strong winds.**

*Range:* Communications with Bridge or EL, use of ballast, options of shelter and lee.

**3. Slow speed manoeuvring in strong winds to a set point (no greater than 40cm either side).**

*Range:* Able to hold a position and angle, can explain a 'ferry' angle to the wind, allows for wind slip at final approach.



## Endorsement 4 – Surf zone operations.

**SCOPE:** This endorsement is for drivers/staff with skills and experience to land/leave a surf zone with/without passengers in polar or non polar waters.

### PERFORMANCE CRITERIA:

- 1. Discuss concepts of good judgement with personal skills vs surf conditions..**  
*Range:* Ability to read surf conditions, self assess, risk mitigation.
- 2. Discuss the advantages and disadvantages and driving procedure for surf landings.**  
*Range:* Forward landings, stern landings.
- 3. Demonstrate a surf landing suitable for given conditions with controlled disembarkation of passengers.**  
*Range:* Management of craft, controlled disembarkation, communication with passengers.
- 4. Demonstrate a surf exit for given conditions with controlled embarkation of passengers.**  
*Range:* Management of craft throughout, controlled embarkation, communication with passengers and/or shore party.

## Endorsement 5 – Crane operations.

**SCOPE:** This endorsement is for drivers who are involved with operations to unattach or attach small boats/zodiacs to a winch or crane hook on a vessel in standard operating sea and wind conditions.

### PERFORMANCE CRITERIA:

- 1. Demonstrate checks for all sling attachment points, transom bolts and sling U bolts.**  
*Range:* Visual check for wear and tear, manual test of bolt tightness and orientation, understands the system for reporting faults or hazards.
- 2. Demonstrates ability to drive to the crane hook and retrieve or attach a small boat/zodiac.**  
*Range:* Decision about current and wind direction, preparation of straps, smooth approach, disengage gears, engage hook, attach control line, engine procedures, tiller raised, anchor stowed, paddles stowed, inflation valves turned if required.
- 3. Demonstrate the correct method for attaching the small boat/zodiac lifting sling to the hook and control line attachment.**  
*Range (there may be ship specific requirements not included in this Range):* Straps untangled, straps clear of tiller arm, lifting hook attached.
- 4. Demonstrate ability to communicate with crane/winch operator via hand signals.**  
*Range:* Stop, up, down.
- 5. Has a working knowledge of Company Handbook and any particular ship specific operations that may differ from the Scope and the rights of driving staff to not be involved in crane operations if they feel it is unsafe for any reason.**  
*Range:* Ship specific Staff Handbook, maintenance issues communicated to appropriate person.

## Endorsement 6 – Land a group on an ice floe or sea ice.

### SCOPE:

This endorsement is for experienced and skilled guides/drivers who land people/groups on ice floes or fast ice. It is expected that they have received mentorship and tuition on all contemporary management procedures and the skills required prior to assessment.

### PERFORMANCE CRITERIA:

- 1. Explain theories of ice strength and ice condition relative to safety concerns for ice landings.**
- 2. Explain options and strategies for small boats/zodiacs to land on ice floes or sea ice.**  
*Range:* Drive-on landings, pontoon landings.
- 3. Demonstrate an ice floe or sea ice landing for given conditions and/or vessel.**  
*Range:* Correct strategy for conditions and vessel, communication with passengers, controlled disembarkation and embarkation, management of excursion area, rescue equipment within easy reach.
- 4. Understands rescue strategies and carries rescue items for a possible 'breakthrough' or fall from ice edge and demonstrates their uses.**  
*Range:* Throw line, paddle, ice-axe, ice probe.

# Endorsement 7 – Rescue driving.

**SCOPE:** This endorsement is for experienced drivers/guides who have **undertaken operations or training on how to load/drive stretcher and patient or patients with limb injuries that require special management and the situational management decisions that go with these transports in given conditions.**

## PERFORMANCE CRITERIA:

- 1. Load a stretcher/patient into a small boat/zodiac.**  
*Range:* Correct placement of small boat/zodiac, communication with stretcher/patient bearers, stretcher/patient correctly oriented in the small boat/zodiac for the specific injury, PFD issues are considered and addressed.
- 2. Deliver stretcher/patient to vessel or designated site.**  
*Range:* Communication with ship/shore team, drives to conditions for patient comfort, explains strategies to stretcher party for unloading.

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DATE:	REVIEWERS:
2010	Prepared by Graham Charles (for Quark and OOE)
2015	Graham Charles
2/3/2016	Graham Charles
3/9/2016	Staff of Vavilov OOE – many alts
5/12/2016	PTGA Board, Doug Gould <i>et al.</i>
8/05/2017	Graham Charles editions
9/8/2017	Graham Charles editions Flipped Small boat/zodiac and wildlife approaches
10/9/2017	Graham Charles split into Polar Endorsement and small boat zodiac ops
14/5/2018	Qualifications Review Meeting
20/5/2019	Qualifications Review Meeting
26/3/2020	Qualifications Review Meeting