

POLAR TOURISM QUALIFICATION



**POLAR
TOURISM**
Guides Association

guiding guiding

Small Boat/Zodiac Operations

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.

Level 1 – Working with Small Boat/Zodiacs

SCOPE:

This award is for ALL staff who will be involved in shore excursions working with and around small boats/zodiacs.

Prerequisites: Current 1st Aid certificate, PTQ – Radio and Communications.

Special Notes i. *Working with Small Boats/Zodiacs is not a separate PTQ. It is to guide training, skill acquisition and competency in simply working with and around small boat/zodiacs and teaches a duty of knowledge and care that all staff should have.*

ELEMENTS & PERFORMANCE CRITERIA:

Element 1.1 – Working with small boat/zodiacs.

1.1.1 Demonstrate knowledge and uses of all shore kit/stranding barrel contents.

Range: Able to list items found in the shore/stranding kit and strategies for using emergency shelters and stove.

1.1.2 Understands ship specific passenger small boat/zodiac safety guidelines and is able to enforce them.

Range: Has read and understood the ship/company specific small boat/zodiac operation guidelines, demonstrates ability to enforce these safety guidelines.

1.1.3 Is able to load and unload a small boat/zodiac during standard operations at a landing, on a pier or beach.

Range: Holding craft, safe positioning and reasons why, checks for any disability or extra assistance, instruct sit/slide, elbow hook, options for bow unload, instructions for next action, cleaning boots/pants.

1.1.4 Is able to check and identify correct usage of PFD's and solve problems.

Range: Inflatable U vests, buckled foam vests.

Level 2 – Driving Small Boats/Zodiacs

SCOPE:

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

Special Notes

- i. *Level 2 is considered the basic level required to be able to drive small boat/zodiacs with and without passengers in moderate conditions not more than 5nm offshore or from an attending vessel.*
- ii. *A small boat/zodiac is an inflatable or hardshell vessel under 6m with an outboard motor 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.*
- iv. *The Polar Endorsement is essential for drivers working in the polar regions in ice, ice-bergs, glaciers and around wildlife.*
- v. *This award does not dictate whether the small boat/zodiac is a pull start or electric start.*
- vi. *There are some equipment items that will be polar specific and may or may not be tested for the basic level. Some of these may take time to become standard on all small boat/zodiacs. PTGA strongly recommends every small boat/zodiac or driver should have a rescue throwbag and know how to use it.*

Prerequisites: >15 excursions as a driver, current 1st Aid certificate, PTQ – Radio & Communications, PTQ – Navigation.

RCC: Review of logged experience, endorsement by qualified driver, relevant external qualifications. See **RCC** and **Cross-credit** matrices.

ELEMENTS & PERFORMANCE CRITERIA:

Element 2.1 – Personally prepare for driving operations.

2.1.1 Demonstrates personal preparedness.

Range: Type of PFD chosen it's uses and limitations, suitable attire for conditions (understands the reasons for, and options to wear waders or a dry suit), radio suitably attached, spare crucial clothing items for self or passengers if required, knowledge of expected conditions and operating locations, navigation device or strategy, sunscreen.

Element 2.2 – Prepare and check a small boat/zodiac for driving operations.

2.2.1 Demonstrate ability to pre-check and start engine.

Range: 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.

2.2.2 Demonstrate ability to lower engine, use and check for engine locking mechanism.

Range: Engine specific.

Element 2.3 – Drive a small boat/zodiac for basic operations transporting passengers to shore, ship or to cruise.

2.3.1 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.

2.3.2 Demonstrate MOB briefing and rescue procedures.

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

2.3.3 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.

2.3.4 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.

2.3.5 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.

2.3.6 Demonstrate ability to transfer passengers safely to another small boat/zodiac on the water.

Range: Positioning, methods of connection, communication of procedure to passengers.

Element 2.4 – Be able to discuss a range of topics concerning broader small boat/zodiac driving situations.

2.4.1 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, use of wind/wave direction.

Element 2.5 – Anchor, attach a small boat/zodiac to shore, ship or other small boat/zodiac safely and efficiently.

2.5.1 Demonstrate strategies for 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.

2.5.2 Demonstrate knots for small boat/zodiac use.

Range: Bowline, round turn and two half hitches, double half hitch on bight, clove hitch.

Element 2.6 – Towing or being towed.

2.6.1 Demonstrate strategies 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.

Element 2.7 – Solve basic issues with engine to ensure safety and time efficiency.

2.7.1 Demonstrate ability to problem solve basic engine problems.

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

2.7.2 Demonstrate ability to deal with pontoon puncture.

Range: Explains strategies for filling, or not filling, punctured pontoon and how to do it.

Element 2.8 – Have knowledge of how to right a flipped small boat/zodiac.

2.8.1 Watch two online line videos on ‘How to right a flipped small boat/zodiac’ and answer five theory questions.

Range: Flip lines attached, small boat/zodiac oriented for any wind/wave assistance, any people briefed and placed safely, people in the water recovered in a timely manner under control.

Element 2.9 – Demonstrate knowledge of Regulations & Legal Requirements for Operators of Zodiacs/Small Boats as they pertain to polar waters.

2.9.1 Answer questions regarding Regulations and Legal Requirements..

Range: COLREGS, navigation leads, channel bouys, operating in harbors and around jetties

Element 2.10 – POLAR ENDORSEMENT

In addition to the above syllabi drivers working in polar environments must have the Small Boat/Zodiac Level II Polar Endorsement.

POLAR ENDORSEMENT ELEMENTS:

2.10.1 Demonstrate ability and strategies for driving in brash ice.

Range: Understanding of risks, picking leads, appropriate speed, weight distribution, strategies for clearing ice from prop or under hull.

2.10.2 Demonstrate knowledge of set industry guidelines and situational strategies for small boat/zodiacs around/in environmental hazards and wildlife.

Range: Ice bergs, glaciers, overhanging rock walls, glacier faces, fog, upwind of ice edges, waves generated by calvings, individual and group strategies for approaching/observing whales/bears/seals.

2.10.3 Understands and able to assess sea/ice conditions against personal skills and the right of any driver to decline to be involved.

2.10.4 Relevant AECO or IAATO Field Staff Test for polar operations.

Level 3 – Advanced Driving Endorsements

SCOPE:

Advanced driving is for experienced polar professionals and crew small boat/zodiac operators. These people are able to support all, or some, of the more more demanding facets of ship and land based operations. A Level 3 driver will have fulfilled all requirements and pre-requisites for Levels 1 and 2 and logged more than 100 excursions driving in a range of conditions. It is not expected that Level 3 endorsements will all be gained on one assessment, rather, they will be collected over time as conditions, experience and opportunity allow.

Prerequisites: >10 excursions in the endorsement field (except 3.5 and 3.6 where the activity just has to be undertaken once), PTQ – Small boat/Zodiac Level 2.

RCC: Logged experience and endorsement or relevant external **qualification**. See **RCC** and **Cross-credit** matrices.

PERFORMANCE CRITERIA:

Endorsement Element 3.1 – Support a sea kayak, SUP, swimming or snorkelling program.

3.1.1 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.

3.1.2 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.

3.1.3 The role of a small boat/zodiac in supporting a recreational craft or swimming, snorkelling 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.

3.1.4 Assist in a rescue and recovery of kayak and/or swimmer/snorkeller.

Range: Safe approach, positioning of small boat/zodiac relative to wind/waves/victim, strategies for getting victim into small boat/zodiac.

Endorsement Element 3.2 – Drive small boat/zodiac safely in strong winds (>30kts).

3.2.1 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.

3.2.2 Explain safety strategies for driving in strong winds.

Range: Bridge comms, use of ballast, options of shelter and lee.

3.2.3 Slow speed manoeuvring in strong winds to a set point (no greater than 25 cm 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 Element 3.3 – Land/leave a surf zone with/without passengers and manage a beach landing onshore.

3.3.1 Discuss concepts of good judgement in personal skills vs surf conditions.

3.3.2 Demonstrate correct timing of boat speed with wave-break to arrive in deepest water on the beach.

Range: Controlled throughout, engine lifted, engine cut.

3.3.3 Demonstrate efficient management of self and passengers in disembarking and embarking on the beach.

Range: Controlled disembarkation, management of small boat/zodiac, management and communication with passengers.

3.3.4 Demonstrate an exit of the surf zone.

Range: Correct timing, correct speed for given conditions, controlled exit.

3.3.5 Demonstrate ability to run a surf landing as shore person.

Range: Correct timing, strategies and options for drivers coming to the shore, effective communication with drivers, effective briefing and communication with shore party, identifies situational hazards.

Endorsement Element 3.4 – Land a group on an ice floe or fast ice.

3.4.1 Explain theories of ice strength and ice condition relative to safety concerns for ice landings.

3.4.2 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.

3.4.3 Demonstrate successful 'drive-on' landings.

Range: Passengers briefed, correct speed, control throughout.

3.4.4 Demonstrate strategies for 'dismounting' the ice platform with and without passengers.

Range: Passengers loaded strategically, small boat/zodiac shifted for optimal exit ease, boat slid or driven off in control.

3.4.5 Explain strategies for unloading and loading passengers onto the ice for both ‘drive on’ and ‘alongside’ type landings.

Range: Location tested prior, communication with others, area of travel briefed, PFD’s to remain on, rescue equipment within easy reach.

Endorsement Element 3.5 – Support an injured person rescue in given conditions.

3.5.1 Load a stretcher into a small boat/zodiac.

Range: Correct placement of small boat/zodiac, communication with stretcher bearers, stretcher correctly oriented in the small boat/zodiac for the injury.

3.5.2 Deliver stretchered 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.

Endorsement Element 3.6 – Right a flipped Small boat/zodiac (performance).

3.6.1 This element does not require pre-requisite experience rather it is an endorsement for drivers who have been part of or attended a course involving physically righting a flipped small boat/zodiac.

Range: Flip lines attached, small boat/zodiac oriented for any wind/wave assistance, any people briefed and placed safely, people in the water recovered in a timely manner under control.

DATE:	REVIEWERS:
1/11/10	Initial draft Graham Charles (Quark and OOE)
2015	Graham Charles
2/3/16	Graham Charles
3/9/16	Staff of Vavilov OOE – many alts
5/12/16	PTGA Board, Doug Gould <i>et al.</i>
8/05/17	Graham Charles editions
9/8/17	Graham Charles editions Flipped Small boat/zodiac and wildlife approaches
10/9/17	Graham Charles split into Polar Endorsement and small boat zodiac ops

Crane Operations Endorsement

The following competency set is used only for ships requiring and training staff to load small boat/zodiacs onto/off a ship via a crane. It is a subset only to be tested if a particular ship requires this type of operation.

Element 1 – Prepare a small boat/zodiac for crane lift and driving operations.

- 1.1 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, mechanism for reporting faults/hazards.
- 1.2 Demonstrate the correct method for attaching the small boat/zodiac lifting sling to the crane.**
Range: Ship specific.

Element 2 – Get a small boat/zodiac off and on the ship safely and support others.

- 2.1 Demonstrate knowledge of strategies of how to control passengers on deck and keep them clear of crane operations.**
- 2.2 Demonstrate preparation and attachment of small boat/zodiac to crane hook and bow line attachment.**
Range: Straps untangled, straps clear of tiller arm, bowline attached.
- 2.3 Demonstrate use of bosun's chair or other method to isolate driver from the small boat/zodiac slings.**
Range: Ship specific.
- 2.4 Checks the lowering zone for hazards.**
Range: Excessive ice, prop wash, current, wind or other zodiacs.
- 2.5 Demonstrate ability to communicate with crane operator via hand signals.**
Range: Stop, up, down.
- 2.6 Has a working knowledge of Company Handbook 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
- 2.7 Demonstrates ability to drive to the crane hook and store the small boat/zodiac.**
Range: Decision about current and wind direction, preparation of straps, smooth approach, disengage gears, engage hook, stop engine, lift engine, tiller raised, use of bosun's chair or isolating harness, anchor stowed, paddles stowed, throwrope stowed, inflation valves turned if required, small boat/zodiac cleaned and any maintenance issues communicated to appropriate person.