AECO Association of Arctic Expedition Cruise Operators

Small Boat Operational Guidelines

November 2026



Contents

Definition 3

Recommendations 4

Engine and small boat standards 4

Minimum equipment requirements 5

Small boat conditions 6

Onboard procedures 7

Distance from mother vessel 8

Measuring distance 8

Driver qualities 9

Training and certification 9

Driving procedures 10

Surf zone 11

Ice conditions 11

Glacier fronts 11

Icebergs 13

Cliffs 13

Impacts on the environment 14

Wildlife in the water, on drift ice and ice floes, and on shore 14

Pollution 14

Passenger handling procedures and instructions 15

Passenger clothing and equipment 15

Passenger boarding and disembarking procedures: transfers to and from the ship and shore 15

Boarding procedure 15

Passenger behavior on board 16

Definition

Small boat is defined as a fully inflated vessel, a semirigid or rigid-hull inflatable boat (RHIB), or a similar craft used for regular passenger landings and sightseeing cruises.

The definition of *small boat* **does not** encompass MOB boats, lifeboats, life rafts, or passenger tenders as referred to under MSC 1/circular 1417. These guidelines apply at all times—with or without passengers in the boat.



Recommendations

AECO strongly recommends that members have detailed small boat operational procedures approved by the relevant classification society and flag state. Procedures based on these guidelines should be implemented in the safety management system (SMS).

Engine and small boat standards

Small boats and their equipment should meet recognized standards, such as the following:

- A CE-approved engine to ensure compliance with EU Directive 2013/53/EU on recreational craft with respect to pollution prevention, exhaust emissions, and noise.
- Inflatable Boat Operations Certificate (IBOC) where applicable.
- ISO 6185:2018; US 46CFR24–26; or another substantially equivalent standard.

Assess the need for propeller guards for use during specific activities.

Minimum equipment requirements

The following equipment should be in small boats or on standby for immediate use:

Anchoring device (with a short length of chain and a long rope)
Paddles
Spare fuel (additional portable tank or as required)
Pump
Tool kit
Fire extinguisher
Radio or portable radio with a spare battery
GPS (with a compass function) with relevant navigational charts installed or paper chartlets
First-aid kit
Flare kit and sound signaling device
Float-free satellite EPIRB or AIS
Lifebuoy or rescue coils/throw bags
Radar reflector
Navigation lights as per COLREG, if operating in reduced visibility or at night

Small boat conditions

Boats must be properly inflated in accordance with the manufacturer’s recommendations.
Any defects found in outboard motors, boats, or associated equipment must be reported to a designated person as soon as possible.
Boats must be clean, water must be pumped out, and seats must be wiped off before passengers board.
Assess the location of grablines inside and outside the boats.



Onboard procedures

- Capacity: Maximum seating capacity varies with the type of small boat. Refer to the manual for the specific boat model, and do not overload boats.

- At least two small boats should always operate together when carrying passengers in case of a MOB situation. This is also recommended when there are no passengers in the Zodiac. The exception is during very short shuttles.

- Life vest: Ensure that everyone is properly wearing a life vest or personal flotation device (PFD) before entering the excursion boat.

- The dead man’s cord should be used according to the policy of your company.

- Technical operational procedures: Before operating the small boat, the driver should always check that it is adequately maintained, that the appropriate fuel container is full, and that other operational requirements are met.

Distance from mother vessel

The distance from the mother vessel shall comply with any applicable local regulations. In the absence of such regulations, the distance shall be subject to a risk assessment based on visibility, the number of small boats operating together, their extra equipment (AIS, satellite phone, etc.), local weather and ice conditions, the presence of wildlife, and other relevant factors.

Measuring distance

- Ensure that distances can be measured during Zodiac operations.
- Check distances to potentially hazardous features regularly.
- It is recommended that available equipment be capable of measuring distances accurately up to at least 1,000 meters.
- It is recommended that staff be trained in assessing distances and using portable distance-measuring equipment, if available.



Driver qualities

Training and certification

All staff and crew hired as small boat drivers must possess the following:

> A valid national or international boating certificate or license from a professional and recognized boating entity.

Some examples are as follows:

- RYA Powerboat Level 2
- SKS certification (Germany)
- USCG (US); SVOP (Canada
- Coxswain (Australia)
- Permis Cotiere (France)
- Klein Vaarbewijs (Netherlands)
- SAMSA (South Africa)
- “Driving Small Boats/Zodiacs”—Polar Tourism Guides Association
- PSCRB as per the STCW Code.

In addition to the above, a certificate of competency from a vessel or management company is required.

Driving procedures

Before each small boat operation, operators will be briefed on expected conditions, including but not limited to navigational features, hazards, weather conditions, landing specifics, and periodic reporting to the mother vessel.

- Always plan small boat operations based on updated navigational charts and weather and ice reports.

- Go slowly when near birds or animals or when seafloor conditions are unknown, in accordance with AECO Wildlife Guidelines and local regulations.

- Avoid sudden or repeated changes in direction or speed, or gear changes, when close to marine mammals or swimming birds.

- Beware of the risk of damage to small boats from wildlife (walruses, polar bears, seals, etc.).

- Before operating, assess the sailing conditions and review any bathymetric data near the coast. Do a reconnaissance without passengers if necessary.

- Assess the need for a second crew or staff member in the small boat when operating conditions at the gangway or landing site are complex, including but not limited to challenging wind and swell conditions. Balance the boat according to the weight of the passengers.

- Use additional ballast, such as crew or staff members or water containers, when driving in unfavorable wind conditions with no passengers on board, for example, when returning after disembarking passengers ashore.

Surf zone

Wave-breaking zones can change rapidly. Be aware of the dynamic nature and inconsistency of wave action in the vicinity of and beyond the expected surf zone.

Ice conditions

- Be aware of and respect the actual ice conditions in which you are operating. Ice conditions can rapidly change with wind, tide, and currents.

- Bumping into growlers at speed can damage the pontoon and/or engine.

- Newly formed ice has sharp edges that might rip a hole in your inflatable boat.

- Investigate ice drift before operating small boats. Be aware! Depending on the type of ice, it can be moved by wind or currents.

Glacier fronts

The minimum distance to glaciers in the Arctic is no less than 200 meters for all vessels. For high activity glaciers such as glaciers fed directly from the Greenland Inland Ice Cap a minimum distance of 400 meters is recommended (at some glacier fronts even this may be too close). Especially in narrow fjords, shallow fjords, and fjords with high cliffs).

Note: In Svalbard, vessels under 24 meters carrying 12 or fewer passengers are required to maintain a distance from glacier fronts of at least five times the height of the glacier front.

Exercise extra caution and always increase the distance to glacier fronts if the glacier calves in shallow water. All glaciers may calve, although the probability varies. For example, some glaciers are much less likely to calve than others, but even less active glaciers may calve.

All small boats must maintain an appropriate distance from the glacier front, including a buffer zone, to allow them to respond to possible calving.

- Avoid being trapped by islands or in brash ice close to the glacier front in case calving occurs.

- If calving occurs and the resulting waves reach shallow water or the shore, a tsunami effect may be created. Small boats should not land on shores near the edge of calving cliff faces, but farther along the coastline from the glacier. Even then, the implications of tsunami waves must be considered when securing boats and selecting landing sites.

Factors that might affect the probability of a calving:

- Glacier front height

- Water depth in front of the glacier

- Gradient of the glacier

- The speed of the glacier front

- Degree of fracturing in the glacier front

- Sea and current dynamics under the glacier front

- Fjord width, sea depth, and topography as high cliffs

Icebergs

Potentially unstable: All icebergs can suddenly flip over, causing flood waves. Keep your distance! Icebergs are continuously under the influence of waves, tides, currents, and temperature and are therefore potentially unstable. Remember that 90% of the berg is underwater.

- Never approach an iceberg too closely. A distance of 200 meters must be maintained from large icebergs.

- Do not enter an “ice pool,” and avoid driving over an ice foot. Although these features look very inviting, they are potentially extremely dangerous should the berg roll over.

- Never drive through an ice tunnel or under an ice arch, as either can collapse without warning. Engine vibrations may affect the stability of the ice.
- Remember that a cubic meter of ice weighs one metric ton! Leave the engine running to enable a fast exit if needed.

- If you see a large iceberg start to roll, drive away from it as quickly as possible.

Cliffs

Falling rocks, gravel, and breaking ice make cliffs and ravines hazardous. Keep Zodiacs away from cliffs. Snow avalanches into the sea pose similar hazards.

Impacts on the environment

Wildlife in the water, on drift ice and ice floes, and on shore

See the guidelines for wildlife viewing and polar bear safety.

Pollution

Small boats represent a potential pollution risk through fuel leakage, the use of low-quality fuel, or untrimmed or older-model engines.

- The use of four-stroke outboard engines is strongly recommended to reduce exhaust fumes and engine noise as much as possible.
- Operators should use low-sulfur or alternative fuels for their vessels to reduce the concentration of pollutants in discharges from boat engines' wet exhaust.
- Environmentally acceptable lubricants for outboard engines should be used whenever possible.
- Biosecurity measures in environmentally sensitive locations must be taken as necessary.

Passenger handling procedures and instructions

Passenger clothing and equipment

- Inform passengers about appropriate clothing for the conditions they will encounter, providing general guidance at the first information meeting and specific guidance before every landing.

- Recommended clothing: windproof, full-body polar clothing with a highly visible red or yellow outer layer rated for 15,000 mm of water resistance; a hat; gloves; a scarf; and suitable footwear.

- Recommended equipment: a backpack with spare clothing and protection for cameras against water splashes.

Passenger boarding and disembarking procedures: transfers to and from the ship and shore

- A small boat briefing is mandatory before the first excursion.

- Include information about MOB procedures for both passengers and drivers.

- Suitable flotation devices are to be provided to guests and crew engaged in small boat activities. Describe the boarding procedure.

- Demonstrate the proper procedure for putting on the flotation device to be worn in the excursion boats.

Boarding procedure

- Flotation device: Be sure that all passengers and crew have put on their devices properly.

- Sailor’s grip: One passenger enters or leaves the boat at a time. Use a sailor’s grip and step onto the inflatable side, then into the boat.

- Passengers take their designated seats.

- Instruct passengers to hold on to suitably located grablines on the boat.

Passenger behavior on board

- Remain seated: Passengers shall always remain seated unless embarking or disembarking, or unless the boat is stopped and permission is obtained from the driver.

- When the boat is making way, all passengers must be seated. No more than one passenger should stand at a time when embarking or disembarking.

- Secure equipment and belongings to avoid losing items overboard. Smoking in the boats is prohibited.

