AECO Association of Arctic Expedition Cruise Operators

Operational Guidelines

Contents

AECO's Operational Guidelines were originally developed with input from the Governor of Svalbard, the Norwegian Polar Institute, WWF's Arctic Program Office, Visit Greenland, Greenland's Ministry of Nature and Environment. The guidelines were adopted by the Annual General Meeting in 2004.

Latest update: 13.06.2025

Mandatory Requirements and Recommendations

Mandatory Requirements	Recommendations
Implementation of Guidelines Take actions to ensure implementation of guidelines Field Staff Online Assessment Require that staff pass AECO's field staff online assessment	**Off-Vessel Risk Assessment Tool** AECO recommends using AECO's Off Vessel Risk Assessment Tool (O-VRAT) before landing.
AECO's Cruise Database All operating members: - Register and update operator information - Register and update vessel information - Register PVR after the season, within deadlines as decided Operators with vessels carrying more than 12 passengers: Register sailing plans prior to the season, within deadlines as decided	**AECO's Cruise Database** Operators operating vessels carrying less than 12 passengers are encouraged to register sailing plans.

AECO's Vessel Tracker and AIS Operators with vessels carrying 12 passengers or more - Install a vessel tracker - Run AECO's vessel tracking while operating in the Arctic	**Research and Citizen Science** Support and contribute to relevant science and research activities *Ref: Chapter 10.4*
Incident Reporting Members of AECO have the obligation to report accidents, incidents, and non-compliance to AECO.	**Incident Reporting** It is recommended to use AECO's Incident Reporting Form when reporting. If the report is made in a different format, the information listed in AECO's Incident Reporting Form must be included.
AECO's Observer Scheme Members of AECO are required to carry an observer once every five years. Procedures and conditions are described in AECO's Observer Scheme	**Wildlife Observations** Establish reporting procedures for sightings of certain wildlife species such as whales, walrus ashore, certain birds etc. in cooperation with national and international institutions.
Fuels Use distillate fuel oil	**Outboard Engines** Use 4 stroke lower emission outboard engines
	Crowd Sourcing Share depth soundings in AECO's crowd sourcing project

Other Member Obligations

Members must:

- adhere to AECO Bylaws (Bylaws Article 3-F).
- submit appropriate dues and fees.
- contribute to the organization’s good reputation and credibility.

Members are asked to actively:

- accept positions of trust.
- involve in projects and processes.
- reply to AECO’s inquiries in a timely manner.
- participate in conferences and meetings.

To contribute to the AECO’s good reputation and credibility, members are asked to:

- advocate for the association and its work,
- point to the association and its work,
- emphasize the importance of the Association,
- promote membership to operators that are non-member.

Planning, Implementation & Reporting

Planning Procedures

Planning procedures must include the following steps:

- Acquire an operational knowledge of laws and regulations regarding environment and safety at sea and land as a base for product development and planning.
- Implement environment and safety considerations at all stages of the planning process.
- Apply local adaptations to cruise/tour programs and itineraries, for instance to avoid seasonal bogs during melting-periods, bird nesting areas during nesting season, bird cliffs during chick-jumping etc.
- Communicate with the local authorities at an early stage when planning new itineraries/products. Send advance notification of your travel plans according to procedures in the regulations and local demands.

Preparation

Preparation for cruise operations must include the following steps:

- Employ staff with relevant experience and in sufficient numbers.
- Define responsibilities and plans of action both for regular operations and for emergency situations.
- Develop systematic staff training at all levels- expedition staff, sales and marketing, administration, and leadership, in the field and the home office- of the environmental and safety policies, regulations and guidelines on a general level and on a relevant detailed level for each job/function.
- Ship crew, officers and staff should be informed about all AECO’s mandatory and recommended guidelines and policies.

- Communicate relevant AECO policy and guidelines to visitors, agents, and the marketplace, as well as to authorities, Arctic research communities and the interested public.
- Coordinate sailing schedules and itineraries pre-season to ensure smooth and safe operations, minimizing the environmental impacts and enhancing the wilderness experience.

Operational Preparations

Operational activities must include the following steps:

- Ensure updated contact information and vessels' registrations in AECO's cruise database.
- Operations with vessels carrying 12 or more passengers must be registered with landing plans in AECO's cruise database. Other vessels are encouraged to also register sailing plans.
- Establish contact with and send information/sailing-plans to relevant authorities and local administrative interests – in accordance with national and local requirements.
- Utilize the ships' Automatic Identification System (AIS) and/or, in the case of SOLAS vessels, AECO's vessel tracker to identify other vessels in the immediate vicinity and communicate intentions to coordinate activities.
- Establish incident-reporting systems related to the environment and safety issues for internal use within each company and for reporting to AECO (see incident reporting). Also, ensure that authorities are informed formally when applicable by law or regulation, or otherwise informally, to ensure open communication regarding any issues which may arise.
- Establish reporting procedures for sighting of certain wildlife species such as whales, walrus ashore, certain birds etc. in cooperation with national and international institutions.
- Maintain regular contact with authorities in the local communities on an informal basis e.g., via the expedition leader visiting the offices of local authorities.

AECO's Observer Scheme

Members of AECO are required to carry an observer once every five years. Procedures and conditions are described in AECO's Observer Scheme.

Equipment and Standards

SOLAS approved vessels are required to install and run “AECO’s vessel tracking” when operating in the Arctic.

All other vessels are encouraged to also install and run “AECO’s vessel tracking” when sailing in the Arctic.

AECO prohibits the use and carriage of heavy fuel oil by members operating in the Arctic.

AECO strongly encourages members to use 4 stroke lower emission outboard engines.

Implementation of Guidelines

The creation of AECO Guidelines is a step toward achieving our objectives. To succeed, implementation on all levels within the AECO members’ organizations is a necessity. AECO wants to highlight the role of expedition staff, leaders and guides, and their key function.

External *information*

- Include AECO information/web address in written information/letters to guests.
- Include the AECO logo and link to AECO’s website on company’s website.

Staff members

- Require staff members to pass AECO’s Field Staff Online Assessment.
- Educate EL/guides about AECO guidelines.
- Require that the EL/guides know and follow the AECO guidelines.
- Include the AECO guidelines in internal manuals.

Crew members

- Educate crew members prior to sailing season.
- Make sure that the AECO guidelines are available on the bridge.
- Require that crew members know and follow the AECO guidelines.
- Require designated crew members to pass AECO’s Mariners Online Assessment.
    - Designated crew members: Captain, Staff Captain (where applicable, Officers in charge of navigational watch, Environmental Officer (where applicable), Chief Engineer, Lead Hotel Officer/Manager, Helicopter pilot (where applicable), Submersible pilot (where applicable).

- Mariners with dual guide and mariner responsibilities are required to pass both the relevant Field Staff Online Assessments and the Mariners Online Assessment.

Onboard Information

- Use AECO's Animated Guidelines, general PowerPoint presentation or similar, to inform guests about AECO and AECO guidelines.
- Either hand out AECO guidelines to guests, and/or include AECO guidelines in cabin information and/or hang AECO guidelines on a visible notice board or show on a screen onboard.

Recommendations

- Use the AECO guidelines as a basis for internal manuals.
- Ship-owners, if possible, include AECO guidelines as part of ship IS5.

Incident Reporting

Members of AECO have the obligation to report accidents, incidents, and non-compliance to AECO. It is important that AECO is informed at an early stage and kept updated on relevant developments.

It is recommended to use AECO's Incident Reporting Form when reporting. If the report is made in a different format, the information listed in AECO's Incident Reporting Form must be included.

Marketing

Members of AECO should be very conservative when using images for advertising that can be misinterpreted by the public and authorities alike. Some images may be interpreted as a breach of the guidelines.

AECO members should make sure that in-house staff and external agents market the member's products in a way that accurately reflects their compliance with AECO's Marketing Guidelines and other standards.

Environmental Considerations and Safety

The guidelines below are in addition to company policy and internal routines. The guidelines are directed at operational staff and to some extent the ship's crew.

Breaking Ice

Both above and below the surface many Arctic species depend on the sea ice for feeding and breeding, especially during spring and summer. Hence the longevity of the fast ice cover may influence the environment.

- Do not break fjord ice during spring and summer.
- Breaking of any ice should always be avoided if there if there is a risk of negative impact on the environment

Landings and Shore-Based Activities

Landings and shore-based activities can affect wildlife, plant life, landscape, geological features, and cultural remains. Landings and shore-based activities may also be subject to safety risks.

General

Even if different parts of the area in question have different legal protection status through national and local legislation, it is the policy of AECO to regard all land and marine areas as protected and act according to the highest protection status, which includes:

- Do not remove anything. The regulations are relatively complex on what can be removed and where (plants, bones, dead animals/skeletons, fossils, stones, etc.). The expedition staff must know the regulations. Visitors or staff from AECO ships should however not move or remove any objects that are not clearly garbage, and thus avoid degradation of the landing sites and their wilderness value.
- Do not allow cairn-building, graffiti creation of any kind, or other such disturbances to the physical environment.
- Ensure that visitors, staff, and crew do not leave anything behind onshore or in the water.

- Be considerate to other people or activities: avoid landings near camps, trappers, or others, unless contact is established, and the landing is agreed to.

Pre-Landing Information for Visitors

- Inform guests about what they will see, encounter/experience.
- Inform visitors about environmental impacts.
- Inform visitors to not remove anything or leave anything behind.
- Conduct pre-landing briefings according to mitigation measures relevant depending on landing type, specific site, and circumstances.

Biosecurity

- Avoid introducing alien species to the Arctic by ensuring that outer clothing, backpacks, etc. are clean, especially at the start of the voyage and between distinct geographical regions.
- A footwear wash station containing a disinfectant such as Virkon must be in place for guests to wash their footwear after landings. Ensure footwear is clean after each landing to avoid the spread of disease such as bird flu.

Site Considerations and Landing Plans

- Avoid other ships at the same landing site. A landing by more than one ship at a time can create confusion, reduce the guides' overview resulting in security risks, increased disturbance, and impact in the local environment, as well as reducing the experience value for the visitor.
- Landing plan: The EL should plan each landing based on knowledge of the site, general and special regulations, restrictions, seasonal and local weather conditions, and safety considerations. The landing staff must be properly instructed before landing.
- AECO recommends using AECO's Off-Vessel Risk Assessment Tool (O-VRAT), when making landings outside settlements.
- Choose a landing site and hiking route that avoids or minimizes disturbance of animals or cultural remains or erosion of vegetation and landscape.
- Use prepared or marked paths if they have been established for the purpose (Note: in some areas it is required to use marked paths).

- Refrain from landing early in (melting season) in sensitive areas or if much rain has made the soil soft / muddy and walking through will create visible trails / damage.
- Organize landings adequately with staff instruction, communications, timeframes etc. Plan the landing in such a way that outside of settlements/developed areas, there are no more than 100 passengers ashore in the same general area at the same time, unless site specific guidelines state different numbers.
- The visitor to guide ratio must not exceed 20: 1 outside settlements unless Site Specific Guidelines state differently and must be lower if local conditions and regulations require.
- When visiting settlements, adjust group sizes to accommodate the size of settlement in accordance with local requirements.
- After the landing, guides should report any possible incidents as well as potential improvements of routines at landing site to the expedition leader.

Split Group Landings

Definition
Landings involving guest split into smaller groups to accommodate different interests, physical capability and/or site use. Each individual group must abide by the staff to guest ratio defined in the AECO Operational guidelines, including enough staff carrying firearms (where applicable). *Operational procedures must be in place for evacuation of guests. This includes medical evacuations. Guests should be given a thorough briefing of limitations of the group, details on recall signals and how to respond to them. Passengers must be instructed to remain vigilant throughout the landing.*

Risk assessment

During a split group landing, guests will be in the immediate vicinity of a guide for direct instructions, interpretation, and assistance always.

Not all areas within the AECO geographical areas are inhabited by polar bears. Also, in areas with polar bears residing, not all landings can encounter polar bears (i.e., landings in settlements). An initial risk assessment of any landing (for example O-VRAT) will hence dictate the mitigation methods implemented.

Safety Risk to Guests:

- Polar bear attack.
- Fall injuries or unexpected medical situations.

Considerations

- Unwanted evacuation rush among guests (panic) that could cause accidents.
- Ensuring sufficient staff with firearms in each group in areas where polar bears can be encountered to accommodate guest group changes over distances considered unsafe to traverse without a firearm.

Risk to Cultural Heritage:

- Trampling of cultural heritage in case of an evacuation.
- Trampling of cultural heritage if not paying attention to guides.

Risk to Wildlife:

- Displace wildlife from area for at least the duration of the landing site.
    - Nesting birds not easily detected on initial scout are especially vulnerable.
- Trampling of bird nests, or displacing wildlife if not paying attention to guides.

Risk to Vegetation:

- Trampling of vegetation if not paying attention to guides.
- Trampling of vegetation in case of evacuation.

Mitigation

Mitigation of Safety Risk to Guests:

- Keeping the landing within the scope of the initial risk assessment.
- Adequate number of small boats available for evacuation throughout landing.
- Appropriate company protocols concerning split group landings.
- Sufficient first aid equipment in each group.
- Staff tightly monitoring guests on shore.
- Detailed information to guests on landing site including but not limited to:
    - What to do if a guest spots a bear.
    - Firearm handlers clearly visible

    - Prior to landing, information to guests on relevant aspects of guide protocols/mentioning the existence of guide protocols, that ensures their safety.
        - This aiming to avoid panic response among guests in case of an evacuation scenario. Injuries due to rush/panic during evacuation must be avoided.

Mitigation of Damage to Cultural Heritage:

- Detailed pre-landing briefings of field staff/guides on where cultural heritage is located.
    - Detailed pre-landing scouting if new sites used.
- Pre-landing briefing of guests to make them aware of presence of cultural heritage within the perimeter.
- Tight monitoring of group by staff.

Mitigation of Disturbance to Wildlife:

- Pre-landing briefing of guests to make them aware of presence of wildlife/ nests.
- Tight monitoring of group by staff.

Mitigation of Trampling of Vegetation:

- Guides to lead group around sensitive vegetation.
- Tight monitoring of group by staff

Perimeter Landings

Definition

Perimeter Landing is when, after an initial area search and risk assessment, expedition staff are positioned at appropriate vantage points surrounding and within a defined and limited area. It is strongly recommended that guests move in pairs to roam freely within the perimeter. The entire area must be visible from the combined vantage points, contain no blind spots. Every spot must be visible from at least one vantage point. The number of vantage points and duration of each watch should be determined within the initial risk assessment.

Approaches to the area must be visible, with >500m distance visibility. Swimming / seaward approaches should be monitored with the use of zodiac vantage points or patrols. The vessel's bridge should also, where applicable, be on watch. Staff to guest ratio must be in accordance with the AECO Operational guidelines including enough staff carrying firearms where applicable. Operational procedures must be in place for evacuation of guests on a perimeter landing. Guests should be given a thorough briefing of limitations of the area, details on recall signals and how to respond to them. Passengers must be instructed to remain vigilant throughout the landing.

Risk Assessment

During a perimeter landing, all guests will likely not be in the immediate vicinity of a guide for direct instructions, interpretation, and assistance. This represents the major difference between a landing in smaller groups supervised by at least one guide, and a perimeter landing. In turn, it is also the largest difference when it comes to risks to guests and the environment in case of an emergency.

Not all areas within the geographical range are inhabited by polar bears. Also, in areas with polar bears residing, not all landings can encounter polar bears (i.e., landings in settlements). An initial risk assessment of any landing (using for example O-VRAT) will dictate the mitigation methods implemented.

Safety Risk to Guests:

- Polar bear attack.

- Fall injuries or unexpected medical situations without immediate attendance by staff.

Considerations

- The larger the perimeter the greater the risk.
- Unwanted evacuation rush among guests (panic) that could cause accidents.
- Information to guests on evacuation practices. General and site specific if special terrain features can impede evacuation. Such as, but not limited to:
    - Soft terrain in parts of the perimeter.
    - Steeper banks near the beach/landing zone that may cause more risk for some to traverse.
    - Uneven terrain on main path(s) for evacuation.
    - Possible presence of wildlife, i.e., reindeer.

Risk to Cultural Heritage:

- Unaccompanied guests around cultural heritage within the perimeter.
    - Unknown (location) cultural heritage at site at greater risk.
- Trampling of cultural heritage in case of an evacuation.

Risk to Wildlife:

- Displace wildlife from area for at least the duration of the landing site.
    - Nesting birds not easily detected on initial scout are especially vulnerable.

Risk to Vegetation:

- Trampling of vegetation due to unaccompanied and unaware guests.
- Trampling of vegetation in case of evacuation.

Mitigation

Mitigation of Safety Risk to Guests:

- Adequate number of small boats on standby for immediate evacuation throughout landing.
- Appropriate company protocols concerning perimeter landings.
- Staff monitoring guests on shore, regardless of distance.
- Keeping the area of the perimeter landing as small as the initial risk assessment dictate
    - If only one ring of guides/bear guards (for interpretation and direct evacuation response) keep area smaller than if two rings of guides/bear

Photo: Quark Expeditions

guides used (one ring for interpretation and direct evacuation response and one peripheral ring for lookout and early warning but with no guest access).

- Detailed information to guests on landing site including but not limited to:
    - Areas within the perimeter to avoid – also in case of emergency (if any)
    - What to do if a guest spots a bear
    - Instructions on where to go in case of a bear is spotted (i.e., directly to the nearest guide, directly to the beach, along an already marked route or direct line, etc.).
    - Prior to landing, information to guests on relevant aspects of guide protocols/mentioning the existence of guide protocols, which ensures their safety.
        - This aiming to avoid panic response among guests in case of an evacuation scenario. Injuries due to rush/panic during evacuation must be avoided.
    - Firearm handlers clearly visible

Mitigation of Damage to Cultural Heritage:

- Detailed pre-landing briefings of field staff/guides on where cultural heritage is located within the perimeter.
    - Detailed pre-landing scouting if new sites used.
- Pre-landing briefing of guests to make them aware of presence of cultural heritage within the perimeter.
- Station perimeter guides/bear guards in the vicinity of cultural heritage to monitor and guide guests.
- If no staff present at cultural heritage, use clear markers to ensure a no disturbance distance is defined.

Mitigation of Disturbance to Wildlife:

- Thorough scouting prior to landing and adjustment of perimeter to exclude any areas that include or may include nesting birds.
- Detailed pre-landing briefings of field staff/guides on where wildlife/ nesting birds are located within the perimeter.
    - Detailed pre-landing scouting if new sites used.
- Pre-landing briefing of guests to make them aware of presence of wildlife within the perimeter.
- Station perimeter guides/bear guards in the vicinity of wildlife to monitor and guide guests.
- If no staff present at wildlife, use clear markers to ensure a no disturbance distance is defined.

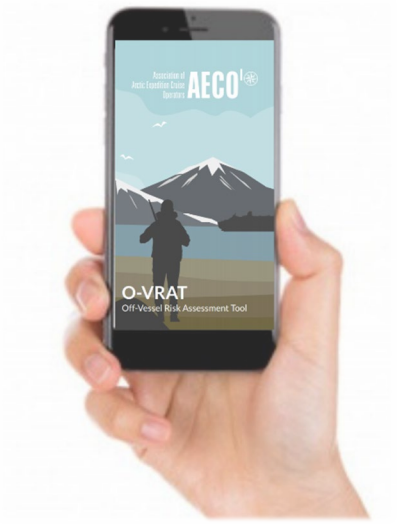
Mitigation of Trampling of Vegetation:

- Thorough scouting prior to landing and adjustment of perimeter to exclude any areas that include or may include sensitive vegetation areas.
- Detailed pre-landing briefings of field staff/guides on where vegetation areas are located within the perimeter.
    - Detailed pre-landing scouting if new sites used.
- Pre-landing briefing of guests to make them aware of presence of sensitive vegetation within the perimeter.
- Station perimeter guides/bear guards in the vicinity of sensitive vegetation to monitor and guide guests.
- If no staff present, use clear markers to ensure a no disturbance distance is defined.
- Try to avoid evacuation routes that go across wetland or other areas with sensitive vegetation.

AECO's Off Vessel risk Assessment Tool (O-VRAT)

To mitigate risks to the environment and people involved, AECO has developed an Off-Vessel Risk Assessment Tool.

It is recommended to use AECO's Off-Vessel Risk Assessment Tool (O-VRAT) when making landings outside settlements.



AECO guidelines dealing with wildlife are also relevant for landings and shore-based activities.

If an operator conducts excursions that include tent camps AECO refers them to national and local legislation related to camping activities as well as AECO guidelines.

Litter

Do not leave any litter anywhere, including cigarette butts.

Single-use plastics and beach cleanup efforts

- AECO encourages all members to reduce the use of single-use plastics and other disposable items.
- AECO encourages members to engage in beach cleanup efforts and support AECO's cleanup projects.

- Please refer to AECO's Clean up Svalbard Guidelines (appendix 8) and other information provided by the Association.

Guidelines on Wildlife Viewing

It is the view of AECO that a high level of environmental consideration, considering the potential for disturbance by our activities, is the best way to enhance and safeguard the experience of the unique Arctic wilderness for our visitors.

Basic principle: No disturbance!

General

Anyone staying in, or operating a tour program in the Arctic, shall show due consideration and exercise the caution required to avoid unnecessary disturbance or damage to the natural environment or cultural heritage.

AECO regards all fauna in the Arctic as protected. No one may hunt, capture, injure or kill fauna or damage eggs, nests, or lairs.

It is prohibited to lure, pursue, or otherwise seek out polar bears in such a way as to disturb them or expose either bears or humans to danger.

No disturbance distance: the principle is that we will avoid disturbing animals. This should not be interpreted as an authorization to move forward until we see a reaction and then stop. The principle is that we shall avoid provoking a reaction in the first place. It is the responsibility of the operators to avoid interactions/disturbance of animals and define how disturbance will be avoided. It is difficult to establish exact distances to ensure that it is not disturbing wildlife. Animals, whether the same species or not, may react differently to a given situation. For some species AECO does give specific recommendations as to distances to the animals as a basic starting point.

Avoid disturbing wildlife with noise. Avoid making loud noises. Keep radios on a low volume setting. If close to animals keep conversation low and calm.

Suspend loudspeaker announcements on deck if there is a risk of disturbing wildlife or local communities, except for mandatory or necessary safety announcements.

Data Collection

Identifying and, in many cases, recording species for trip log purposes is a part of most onboard naturalists' reports. These logs are valuable for research and management of the areas.

- Note the GPS position (Latitude and Longitude) of sightings.
- Identify species and provide any additional information, such as identification photographs.
- If encouraged/asked, send copies of sighting reports to collaborate partners and authorities.

Wildlife Found Dead

Wildlife found dead or other objects that stem from animals should not be removed e.g., carcasses or other objects coming from polar bears, reindeer, walrus, whales etc. lying in the terrain. In Svalbard, wildlife found dead, parts of wildlife found dead, and animals killed in the interest of animal welfare belong to the Svalbard Environmental Protection Fund. Report findings to the Governor and do not remove anything (like walrus tusks, teeth, and claws of polar bear etc.).

If you observe entangled or dead animals, report to the authorities in accordance with regulations and local requirements.

Rabies

Rabies has been detected in Arctic regions. Some animals, such as the arctic fox, arctic dogs and arctic wolves are potential carriers of rabies.

- Never touch live or dead wild animals.
- Inform local authorities if you observe animals that might have rabies.

Arctic Dogs

Arctic dogs are potentially dangerous. Keep a safe distance. Report to local authority or community if you observe loose dogs outside settlements.

Entanglement and Stranded Animals

- Assist where possible: any animals entangled in fishing equipment, etc., should be assisted when this is possible. Use experienced staff/crew for these situations. Should you not be able to assist, record details including latitude and longitude, species, and type of entanglement.
- Photographs of the entanglement should be taken.

- Report: report the event as soon as possible to local authorities for further instructions or to seek assistance. Complete a report and send it to the local authorities.
- Details of dead (floating) whales and stranded animals should be recorded. Where possible, take photographs recording the front and side of the head of the animal (for species identification).
- Include a scale of measurement (e.g., a ruler or Zodiac paddle) in the photographs. Report findings to local authorities as soon as possible.

Wildlife Guidelines

AECO has developed specific wildlife guidelines that apply for walrus, seal, cetaceans, reindeer, Arctic fox, birds and polar bear, found in appendix 5. Guidelines for species where special guidelines have not yet been developed can be found below:

Wolves

Arctic wolves are quick to learn begging if fed. Ensure that no food is available to them while you are ashore. Close contact with wolves is potentially dangerous because of rabies.

Musk Oxen

Musk oxen are potentially dangerous. Solitary oxen and herds with calves are considered to be most dangerous. Keep your distance and never approach closer than 100 meters. Never go between mother and calves.

Hare

Do not follow hares, let them approach you.

Vegetation

AECO has developed specific Vegetation guidelines (Appendix 6) that apply for the Arctic.

Geology

- Avoid making visible trails. Preferably walk on rock, firm soil or gravel.
- Gravel slants: avoid walking up or down gravel slants where paths become very visible.

- Specific geological formations: approach interesting geological formations in such a way that they are not harmed.
- Thermal wells: be aware that some thermal wells may be protected, and specific regulations may apply. Do not walk on the limestone plateau, or the unique vegetation nearby. These calcareous formations are very sensitive to physical disturbance such as trampling. Keep a minimum distance of five meters.
- Fossils: do not remove fossils. There are different regulations in different areas; AECO members' passengers or staff should not remove fossils, or for that matter stones, at any landing sites.
- All minerals and rocks are protected under Greenland law. Tourists are not allowed to collect or extract stones or minerals in Greenland. If participating in a locally organized geological tour, minerals collected there can only be exported by show of receipt of participation in the tour and/or and export permit.
- Geological structures under water: some geological structures under water may be especially vulnerable (such as the underwater pillars in Ikkafjorden – special regulations apply). Avoid causing any harm to such structures.

Cairns, Graffiti, Signs, etc.

- Do not build cairns, gather, or rearrange stones in any way.
- Do not allow cairn-building, graffiti creation of any kind or other such disturbances to the physical environment.

Cultural Remains

AECO has developed specific cultural remains guidelines (Appendix 7) that apply for the Arctic.

Drones and UAVs

AECO has banned the general use of UAVs by revenue passengers in the Arctic. The use of UAVs for special purposes may be decided by the operators within the limits of regulations and AECO guidelines. UAVs/Drones can under no circumstances be used to pursue or approach wildlife.

Factors Influencing Rockfalls & Rockslides

Risk Considerations and Safety Measures

Operating in the vicinity of cliffs, steep coastal slopes, and glacier fronts presents inherent risks due to potential rockfalls, landslides, and ice breakages. These hazards can be exacerbated by environmental conditions and geological factors. AECO members should take the following precautions:

When assessing risks associated with steep or vertical coastlines, consider the following:

- **Recent weather conditions**: Freeze-thaw cycles, heavy rainfall, high winds, and wave action can trigger instability.
- **Slope angle and cliff height**: Vertical cliffs may result in debris falling directly down, while overhangs increase the risk of outward ejection.
- **Geomorphology**: Larger or irregularly shaped debris may travel farther upon detachment.
- **Impact energy potential**: Debris bouncing off hard surfaces, being funneled through gullies, or landslides involving ice breakage can increase ejection distance.
- **Signs of instability**: Look for scarring, changes in soil color, rock debris fields, and vegetation disturbances as indicators of recent activity.

Waterfalls: Moving water can cause rocks to fall.

Zodiac Operations Near Cliffs

- Recognize that rockfalls and landslides can occur suddenly, particularly in areas with slopes greater than 30 degrees.
- Maintain a safe distance from vertical or overhanging cliffs, as falling debris can be projected outward beyond the cliff face.
- It is important to include guidance on observing both the terrain ahead and overhead—falling debris from above can be highly dangerous. Even small, dislodged rocks can cause serious harm near cliffs.

Operational Guidance for Shore-Based Activities

When conducting operations on land near cliffs, permafrost areas, or steep terrain, AECO members should:

- Assess the stability of the terrain, particularly in areas with permafrost, where freeze-thaw cycles can contribute to:
    - Active layer weakening due to water saturation.
    - Rockfalls in overhead environments.
    - Solifluction, where water-laden soils creep downslope.
    - Ice wedge collapse, creating voids that can lead to sudden ground failure.
    - Frost thaw settlement, causing uneven terrain over time.
- Conduct pre-landing reconnaissance for signs of instability and plan evacuation routes accordingly.

Tsunami and Large-Scale Landslide Awareness

- Large-scale rockslides may trigger tsunami waves, posing significant risks to coastal and fjord areas.
- Operators should be aware of existing warnings, such as those issued for Uummannaq area and Dickson Fjord, where past events have generated waves reaching up to 200 meters.
- Avoid high-risk zones and conduct thorough risk assessments before entering areas with a history of large-scale landslides.
- Monthly updates on the stability of mountain sides in Uummannaq area are issued by the Greenland Mineral Authority: Situation Assessment – Wednesday, 2 April 2025 | Mineral Resources Authority - Naalakkersuisut

Mitigation Strategies

- Maintain **situational awareness** and ensure open communication among staff and crew.
- Regularly monitor bathymetry and ensure clear retreat routes when operating near cliffs and steep slopes.
- Report any signs of instability, recent rockfalls, or hazardous conditions to AECO and relevant authorities.

- Where feasible, employ AECO's Off-Vessel Risk Assessment Tool (O-VRAT) to evaluate risk levels before conducting operations.
- Given the energy and velocity of some rockfalls, avoidance of high-risk areas is the most effective risk mitigation measure.

By adhering to these guidelines, AECO members can enhance safety measures and minimize environmental risks while operating in cliffside and steep coastal areas.

Polar Bears and Firearm Safety

Polar Bear Confrontations

AECO's wildlife guidelines include a specific Polar Bear Guidelines (Appendix 5).

AECO members must take every necessary action to avoid confrontations with bears. Polar bears are best observed from a distance where they are undisturbed. Hurting or killing a polar bear is an offence if not done in self-defense. Irresponsible actions leading to such a situation can also be deemed an offense.

As a rule of thumb, a polar bear's behavior should not be altered because of your presence.

Any shooting at or of a polar bear will be investigated as a possible criminal offense. The investigation will include focus on whether the tour operator has ensured that the guards had the necessary knowledge of firearms, that training in polar bear protection had been given, that adequate firearms and deterrents were available and that there are established routines for handling confrontations with polar bears.

Polar bears can be encountered all over Svalbard, including Bjørnøya and theoretically all over Greenland, but most likely in East -, North – and Northwest Greenland. In areas with polar bears, encounters must be expected anywhere, anytime. Appropriate means of frightening and chasing off polar bears should be part of the equipment; for example, flare guns and flare pens equipped with thunder flashes or signal cartridges, sirens and similar. Such equipment should be carried so that it is readily accessible.

Firearms

Careless handling of firearms represents a greater hazard to human health than polar bears. It is imperative that safety rules be adhered to when firearms are stored, transported, or used.

People have very differing attitudes or feelings towards firearms ranging from nervousness and negative feelings to strong interest and a desire to look at or touch weapons. It is important that the expedition leader and guides explain the need of guns and signal guns, how and when we load and unload them, the dangers involved, the importance of unauthorized persons never touching them and of following the instructions of the guides and guards ashore.

General

Type of weapon:

- Local legislation may be different from area to area and must always be consulted and adhered to.
- All firearms in use on the cruise should be of the same caliber, using the same ammunition.
- Guides should use individually designated firearms: Guides and/or polar bear guards carrying firearms should preferably be responsible for one particular rifle throughout the season (or throughout the whole cruise).

Training

All guides and polar bear guards should be experienced in the safe handling of firearms, have good shooting skills, and have knowledge about polar bear behavior. At least one guide ashore should have considerable experience, preferably from hunting or active shooting. Unless the user is familiar with the firearm and has had sufficient training with a firearm, the sense of safety provided by firearms is deceptive. Test your weapon and signal gun/pen prior to the cruise. Never point at anyone with a gun or signal gun/pen; loaded or unloaded.

Signal Guns

To frighten away a polar bear, a signal gun or emergency signal pen (with crack cartridges) is more suitable than a rifle. However, flares cannot replace a rifle, they only

complement it. Moreover, flares are useful for alerting people about imminent danger or accident. Flare guns also represent a hazard for humans and should not be loaded unless needed.

Storage and Maintenance

- Weapon locker: All firearms should be stored in the ships' weapon locker, never in the owner's cabin. The bolt should not be stored in the same place as the rifle.
- Ammunition should be locked in.
- Running maintenance: The "owner" has the responsibility of maintaining and cleaning their rifle. Be sure that the oil used to clean the gun is suitable for low temperatures – incorrect cleaning materials can result in weapons jamming in the Arctic.

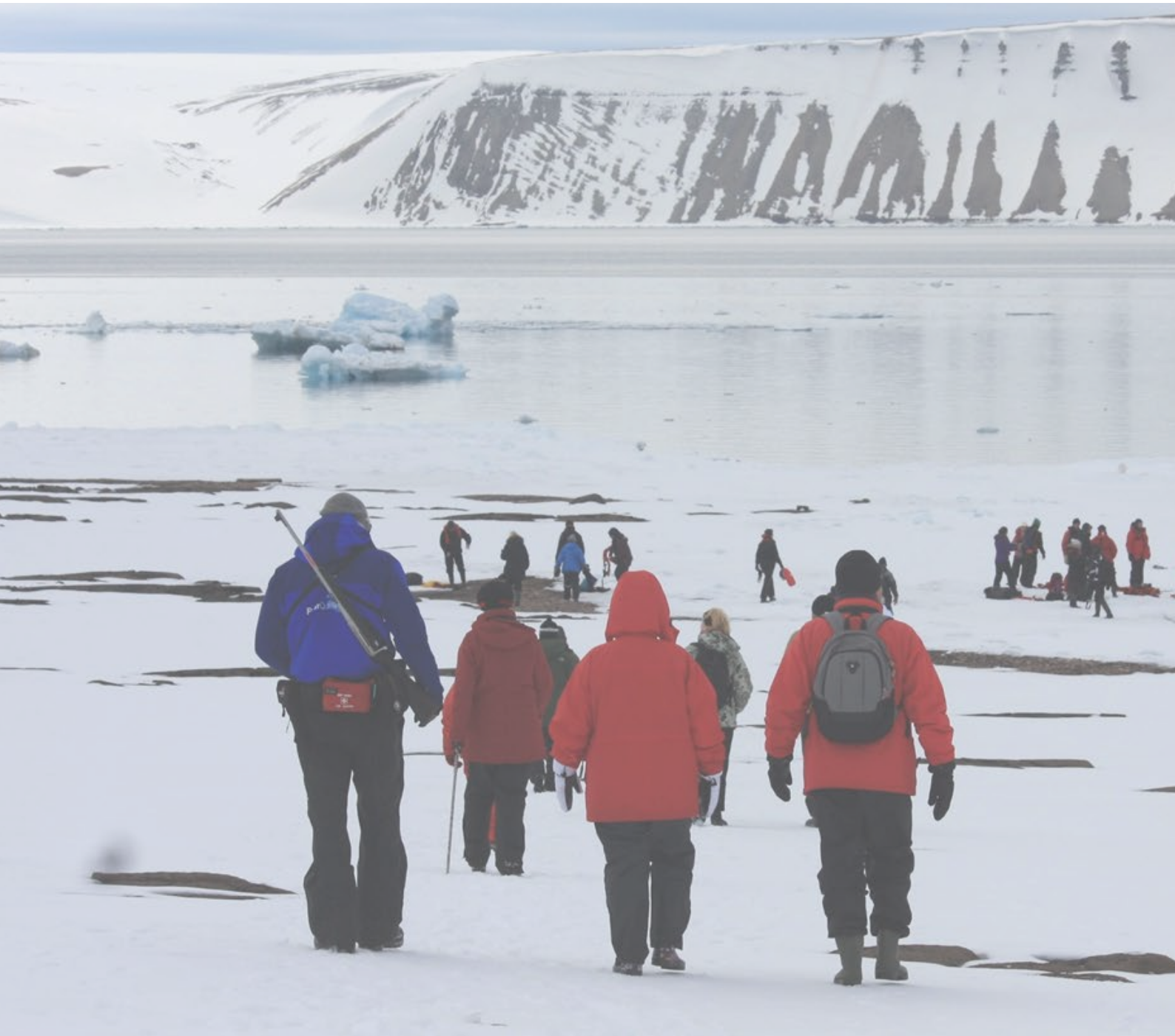
In Zodiacs – Transportation

- Use a cover to protect the rifle from sea water and dust.

- The rifle should never be loaded or semi-loaded in the Zodiacs.

Ashore

- The expedition staff must keep an overview of their group!
- If approaching a cabin, send an armed person out to check out the cabin first to make sure there are no bears hiding close to or inside the cabin.
- Never let visitors walk alone if not accompanied by a rifle-carrying person.
- Load cartridge (half loading) of at least one firearm immediately when coming ashore outside settlements.



- Load the chamber only to prepare for an actual warning or shot. Never walk around with loaded chamber.
- Empty the chamber immediately when a risky situation ends.
- Never let visitors handle your rifle.

In Settlements

- Never walk inside the settlements with a half loaded or loaded rifle. Let the bolt be open or remove it, making it visible to everybody that it is unloaded.
- Never walk outside the settlements in polar bear areas without a rifle.

Hazards and Safety Risk Ashore

Beside risks in connection with polar bears, walrus, firearms, and zodiac landings - the following challenges are among those that can be met:

- Along shore: sudden waves, shoreline fallout.
- Terrain: unpredictable conditions caused by climate change, e.g., more rain and greater risk of avalanches and landslides.
- Rivers: rivers can be deeper than they appear.
- Hidden ice: gravel and scree can cover hidden ice or glacier remnants and possibly crevasses or bergschrund. Ice can be unstable and can slide out or fall.
- Glaciers should not be approached without experienced guides.
- Flood waves: glacier fronts and icebergs flipping over can cause serious flooding on shorelines.
- Weather conditions can change rapidly and be hazardous such as fog, blizzard etc.
- Visitors hiking capacity: an overestimation of someone who takes part in a longer or more difficult walk can spread out the group and lead to dangerous situations.

This chapter will be amended following new regulations in Svalbard.

Cultural and Social Interaction

“Do not expect to find everything as it is at home – you have left home to find things different.”

These guidelines for cultural and social interaction are developed to support members in their effort to conduct respectful interaction with people and cultures they meet, and to maximize local communities’ benefits from tourism. Although these guidelines especially mention Inuit and Greenlandic communities, they apply to visits in any Arctic town or settlement, including Norwegian, Russian, and Polish settlements in Svalbard.

AECO has developed Community Guidelines (appendix 3), and a template for the Development of Community Specific Guidelines (appendix 3).

AECO has also implemented several Community Specific Guidelines that are mandatory for our members.

Speed Limit Around Communities

AECO members are requested to consider a 10-knot speed limit for vessels of more than 10 meters in length within a 3-nautical mile distance from all communities.

Wildlife and Sensitive Areas

- In addition to regulatory compliance, each member is encouraged to identify sensitive areas within their operating area to consider voluntary measures and best practices to mitigate concerns from communities and impacts to wildlife.

- In areas of known marine mammal activity, at least one personnel assigned to lookout or watching duties will have completed marine mammal observer training. Training can be conducted internally by the operator or by an external provider.

Other Considerations

Arctic Dogs

In many Arctic towns and settlements there will be a significant number of Arctic dogs. They are working dogs and not pet animals. They can be dangerous to strangers, therefore:

- Never approach or attempt to pet Arctic dogs without permission and supervision from the dog owner or handler.
- Never feed Arctic dogs without permission and supervision from the dog owner or handler.

Military Stations

Five Danish military installations in Greenland have historically been subject for applications for visits. Four located in the National Park in East Greenland: Station Mestersvig, Station Daneborg, Station Nord, and Station Ella Ø (military facilities are limited to the area east of the river Hundeelven). One is located in South Greenland; Station Grønnedal. Request to visit only via email: FKO-KTP-AKO@MIL.DK.

Search and Rescue Services

Search and rescue services are present in most Arctic areas. But remember, the areas are huge, and the resources limited. Avoid any potential misuse of resources by:

- Keeping in contact with local authorities.
- Reporting your position in accordance with local demands.
- Always informing local authorities before entering and after leaving areas with limited possibilities of communication (e.g., fjords).
- The use of a satellite positioning system is recommended.

Scientific Work and Cooperation

AECO and its members should:

- Support, and if needed, proactively initiate studies on cumulative visitor impacts to sites and/or areas.

- Support and contribute to relevant scientific and research activities through contributing to transportation, logistical support, or other assistance from our ships in Arctic waters.
- Engage in a working relationship with non-governmental organizations active in conservation and environmental issues.

Post Visit Reporting

- Use AECO’s cruise database for Post Visit Reporting.
- Svalbard: Report to the Governor. Ships sailing in Svalbard waters shall, according to law, report all landings with the exact site name and position (preferably GPS-position) of landing and the number of persons landing.
- Greenland: Ships sailing in Greenland national park shall submit post-visit reports in accordance with requirements following the permission to enter.

Evaluation

Evaluation should aim to:

- Evaluate planning and operations systematically in view of environmental and safety challenges and experiences with the aim of improving your operations and, if applicable, the AECO guidelines/industry standards.

List of Appendixes

Appendix 1 - Visitor Guidelines
https://www.aeco.no/guidelines/visitor-guidelines/

Appendix 2 - Site Specific Guidelines
https://www.aeco.no/guidelines/site-guidelines/

Appendix 3 - Community Guidelines and Guidelines, Community Specific Guidelines and Community Specific Guidelines
https://www.aeco.no/guidelines/community-guidelines/

Appendix 4 - Biosecurity Guidelines
https://www.aeco.no/guidelines/biosecurity-guidelines/

Appendix 5 - Wildlife Guidelines
https://www.aeco.no/wildlife-guidelines/

Appendix 6 – Vegetation Guidelines
https://www.aeco.no/guidelines/vegetation-guidelines/

Appendix 7 – Cultural Remains Guidelines
https://www.aeco.no/guidelines/cultural-remains-guidelines/

Appendix 8 – Clean Seas and Clean up Svalbard Guidelines
https://www.aeco.no/guidelines/clean-seas-guidelines/

Appendix 9 – Yacht guidelines
https://www.aeco.no/yacht-guidelines/