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GUIDELINES FOR TOURIST OPERATIONS IN ANTARCTICA

By the
**INTERNATIONAL ASSOCIATION OF
ANTARCTICA TOUR OPERATORS (IAATO)**

Introduction

Since 1991 IAATO has established numerous operating procedures and guidelines in order to minimize environmental impacts, allow for a coordinated approach between all operators, address safety concerns, contingency planning, reporting mechanisms, station visits, government/national program concerns and science initiatives.

The following guidelines and or operating procedures that IAATO has contributed to and or developed over the last 12 years are noted below. Individual guidelines on this list will be improved upon and updated as needed. All IAATO members are committed to protecting Antarctica and are concerned about minimizing cumulative impacts. These guidelines are voluntary but have proven to be effective over the last 12 years.

- (1) **Recommendation XVIII-1; Guidance for Visitors and Tour Organizers to the Antarctic**
- (2) **Marine Wildlife Watching Guidelines**
- (3) **Helicopter Operations**
- (4) **Zodiac or RIB Operations**
- (5) **Remotely Operated Vehicle**
- (6) **Specialized adventure activities** (skiing, mountaineering, kayaking and scuba/snorkeling/diving and camping)
- (7) **Argo/Amphibious Vehicle Operations**
- (8) **Boot and Clothing Decontamination Procedures**
- (9) **Site Selection Criteria Guidelines**
- (10) **IAATO Site Specific Guidelines**
- (11) **IAATO Bylaws**
- (12) **IAATO Pre-Season Checklist**
- (13) **IAATO Annual Instructions**

(14) IAATO EMER (Emergency Medical Evacuation Response)

All IAATO members have comprehensive operating policies available on board their vessels. Most companies call these “binders” Expedition Leaders Handbook” or “Staff Resource Notebook.”

All IAATO member companies who are responsible for operating ships and land-based programs have submitted Initial Environmental Impact Assessments to their national authorities.

IAATO members have been dedicated to developing these procedures and guidelines for over 12 years. National Programs operating and or carrying tourists on vessels or land-based programs that do not have similar procedures in place for their tourist programs or would like assistance from IAATO in developing procedures for tourists traveling on government vessels should contact the IAATO Secretariat at iaato@iaato.org. Some of the listed guidelines discussed here are found on the IAATO website, and others are in the members-only document.

Two national programs have developed guidelines for Tourist Visits to Stations. These operational procedures make it easier for both the tourism industry and the stations so that the visits are well organized. British Antarctic Survey (BAS) has developed Guidelines for tourists to BAS stations, and the US Antarctic Program has guidelines for tourists visiting Palmer and McMurdo Stations.

A. Land-Based Activities

Land-based adventure expeditions operated by IAATO-member Adventure Network International (ANI) in the interior of Antarctica are governed by numerous guidelines, primarily designed for air operations, camping, skiing, mountaineering, and related activities. In addition, ANI has a stringent checklist given to potential clients as part of the preplanning process. ANI will not accept all adventure proposals and will ensure that the expeditions are well organized with safety, contingency plans, search and rescue and environmental considerations as a high priority. ANI will work during the upcoming calendar year (2002-2003) with IAATO to develop a checklist so that all IAATO members can be assured that if adventure activities are proposed, they will be conducted with meticulous pre-planning, and with contingency plans in place.

B. Sea-Borne Tourism

The following discussion is intended to provide brief summaries of each of these guidelines, some of which are still being compiled and revised as field experience develops. Various guidelines can be amended in the future if necessary. Each tour company has its own operating or *Expedition Leaders Manual* in addition to the above-mentioned list for its specific activities.

1. Guidance for Visitors – Recommendation XVIII-1

From its beginning in 1991, the International Association of Antarctica Tour Operators (IAATO) has conducted its activities in Antarctica with a high level of professionalism regarding wildlife, safety, and the environment in general. The expedition travel companies implemented the original Code of Conduct, or guidelines in the 1970’s in order to provide for safe and responsible tourism. Protecting wildlife

and the pristine environment was a focus for ship-borne operations. These Codes of Conduct were solidified in 1988 and eventually these guidelines evolved into Recommendation XVIII-1, enacted by the Treaty Parties at the ATCM in Kyoto, Japan, in 1994. The Recommendation is in two parts,

- **“Guidance for Visitors to the Antarctic”** and
- **“Guidance for Those Organising and Conducting Tourism and Non-governmental Activities in the Antarctic.”**

IAATO has had these guidelines translated into languages besides English (French, Russian, Spanish, German, Japanese, Italian, Chinese) as a means of ensuring that the numerous nationalities of the tourist countries of origin are made aware of these important documents. Every passenger landing in Antarctica on an IAATO-member vessel is provided with a copy of Recommendation XVIII-1, and onboard briefings are given by expedition staff to review and emphasize each point.

2. Marine Wildlife Watching Guidelines

Numerous sources were consulted worldwide to achieve as complete a series of instructions and guidelines as possible with regard to marine wildlife. The guidelines comprising current practices observed by IAATO-member companies and their vessels are listed in Appendix A. These guidelines were finalized and approved at the 2002 IAATO General Meeting and will be implemented beginning in the 2002-2003 season.

3. Helicopter Operations

Helicopters have been used on tourist vessels for passenger use since 1991, and since the introduction of Russian icebreakers for tourism in the 1992-93 austral summer, every year since. The document on **“Helicopter Standard Operating Procedures”** (SOPs) was developed by IAATO-member Quark Expeditions. Although twin-engine jet helicopters have been used on Russian icebreakers in the past (Russian models MI-2 and MI-8), nearly all voyages in Antarctica presently use single-engine helicopters. Helicopters are used for ice and landing reconnaissance, as well as passenger flights. Excerpts from this 9-page document follow, to cover salient points of these SOPs.

“Helicopter operations will be carried out in accordance with Recommendation XVIII-1, specific Standard Operating Procedures, and within the rules and regulations set forth by the Antarctic Treaty System. Annex II to the Protocol on Environmental Protection, Conservation of Antarctic Fauna and Flora, addresses the concern over harmful interference (i.e. the flying or landing of helicopters or other aircraft in a manner that disturbs concentrations of birds and seals)—concentrations here is defined as a group of several birds or a colony of birds. No landings are to be made in or near any protected areas (SSSIs, SPAs). Helicopter SOPs were developed in consultation with Australian, New Zealand and U.S. Helicopter Guidelines and information found in the Antarctic Flight Information Manual (AFIM).

“Pilots and expedition staff are advised that helicopter landing sites must be no closer than 1,500 meters (5,000 ft) from concentrated wildlife. Helicopters are under no circumstances allowed to fly over any wildlife concentration, and will not fly at altitudes lower than 750 meters (2,500 ft), laterally to each side of any such

concentrations. If any disturbance to wildlife is noted, the flight path will be changed accordingly.”

Helicopter landings will take place on ice and snow, in order to avoid any potential impacts on rock, soils, and vegetation. Helicopters must not over fly lakes, and not land within 750 meters (2,500 ft) of lakes or vegetated areas, and should always try to land behind features such as ridge lines or icebergs to help obscure the helicopter and its noise from wildlife. Flight paths will approach wildlife sites from down-wind only to reduce any disturbance from noise, exhaust fumes and dust. All refuse or waste generated during helicopter activities will be returned to the ship for proper disposal. No refueling operations will take place ashore at any time.”

This brief list of Headings and sub-Headings of the document on Helicopter Operations follows for further information:

1. Guidelines of Operation
 - Licenses, Spare Parts and Maintenance
 - Helicopter Operation Team (HOT)
 - Refueling Operations
2. Passenger Briefings
3. Staff & Crew Briefings
4. Landing and Shore Operations
5. Environmental Considerations
6. Survival Equipment

One non-IAATO member company uses helicopters for flight reconnaissance.

4. Zodiac and or RIB Operations

Zodiacs or RIBS (Rigid Inflatable Boats; a Naiad is an example) are an integral part of virtually all ship-borne tourism in Antarctica, because they allow for passengers to leave the ship and experience the wonders of wildlife and scenery from a closer perspective. The inflatable pontoons, safety features, and maneuverability permit up to about 12 passengers in a Zodiac plus the driver, with an outboard motor providing power. The Zodiac model was conceived and developed by Jacques Cousteau, and is available in several sizes and designs—the Mark V is most commonly used in tour vessel operations. All Zodiac drivers are subject to a thorough review of their performance and approval by the ship Safety Officer or equivalent.

Each tour company has its own operating manual for Zodiac operations relative to their own ship operating procedures, and all are nearly identical in content. An important feature of Zodiac operations is the briefing given by ship staff prior to use of the Zodiac. All points are covered thoroughly, and repeated once more as passengers leave the ship to board Zodiacs. Critical points include a securely fastened life vest for anyone in the Zodiac, an arm-to-arm grip for assistance in boarding and leaving the Zodiac, and procedures while underway; e.g. the driver is in charge of the Zodiac, and no one is allowed to stand (to photograph scenery, e.g.) without permission.

Major points covered in a typical chapter for Zodiac operations include the following

- Passenger Briefing Points
- Landing and Shore Operations (Preparations, Disembarkation Procedures; Re-embarkation Procedures; Boot and Clothing Decontamination)
- Guidelines for Drivers
- Zodiacs around Wildlife and Icebergs
- Safety Procedures, and
- Survival Equipment.

5. Remotely Operated Vehicles (ROV)

An ROV is essentially an underwater video camera housed in a protective cage and driven by vertical and lateral thrusters. A cable to a surface operator tethers it. Although this is an activity in which passengers are not directly involved, one of the IAATO-member vessels has introduced a Remotely Operated Vehicle (ROV) that is intended to be deployed occasionally to capture footage of the unique marine environment in Antarctica. The footage is later viewed by guests on board ship and interpreted by experienced naturalists. Examples of subjects filmed of interest include various ice forms, marine biota on the substrate, shipwrecks, and any wildlife in the vicinity of the ROV. The ROV would be deployed most often from a Zodiac. Special care is to be taken so that the slightly buoyant cable does not drag on the bottom, or become entangled, as well as not interfere with any wildlife in the vicinity.

6. Specialized Adventure Activities – Scuba Diving, Snorkeling, Kayaking and Camping

Ship-borne tourism began diversifying nearly 8 years ago. Companies conducting these types of activities have initiated specific guidelines and company operating procedures for passengers, staff, officers and crew. Companies undertaking these activities have agreed to adopt standard “IAATO” guidelines for camping, scuba diving, snorkeling, kayaking etc. They will merge their individual guidelines and agree on a final version.

Diving and Snorkeling

An example of the Table of Contents from Aurora Expeditions of one such manual for diving and snorkeling follows:

“Procedures and Guidelines for Recreational Diving and Snorkeling on Antarctic Voyages”

1. Purpose
2. Scope
3. Definitions
4. Responsibilities
5. Recreational Diving
6. Training and Qualifications of Client Diver
7. Training and Qualifications of Dive Personnel
8. Diving Procedures
9. Diver Equipment
10. Safety Equipment

11. Diving Emergency Procedures
12. Compressors and Air Quality for Scuba Cylinders
13. Recreational Snorkeling
14. Procedures
15. Supervision
16. Equipment
17. Snorkeling Emergency Procedures
18. Safety Equipment
19. Appendices: Application form
 - Notes for scuba divers
 - Tips for scuba divers
 - Equipment check-list
 - Standard safe-diving practices
 - Certified diver's liability release form
 - Medical statement
 - Dive roster
 - Accident management flow chart
 - Accident record form
 - Incident report form
 - Snorkeling and scuba diving liability release and assumption of risk

Sea Kayaking

Similar to operating procedures for diving and snorkeling, instructions for sea kayaking are very detailed in order to provide maximum enjoyment and safety for participants. The following is a briefing checklist contributed by Lindblad Expeditions consisting of the following points, as excerpted from the complete checklist:

- The Watch Officer must be informed of the completion of the Kayaking Briefing Checklist. Kayaking excursions may not take place until the briefing has been completed
- Remind guests of the opportunity for additional instruction on the water.
- Recommend lessons for all novice kayakers or those that have not kayaked for an appreciable time
- Preparations
- Demonstrate getting in and out of the kayaks
- Explain steering of the kayaks
- Explain paddling and demonstrate effective paddling
- Discuss general safety & security
- Explain various signals
- Discuss capsizing and what to do in that event
- Discuss anticipated weather conditions and special possibilities (offshore winds, e.g.)
- Remind guests of relevant issues again while at the kayaking site.

Other activities

Mountaineering and Camping are included in some itineraries of IAATO-member tour vessels, with guidelines being compiled for each. Mountaineering is particularly well regulated by the company staffs, which are experts in that field. Camping takes place on snow and ice and generally away from wildlife areas.

7. Argo Operating Guidelines

Only one company, Heritage Expeditions, has operated two amphibious all terrain vehicles for two Antarctic seasons in order to transport passengers from ship to shore across fast ice. A complete description of policies and procedures are detailed in Heritage Expeditions Operations and their Health and Safety Manuals.

8. Boot and Clothing Decontamination Procedures

These guidelines have been tabled at ATCM XXIV, XXIII in IAATO's Annual Report. These guidelines were developed to minimize the potential for visitors to be vectors of disease transmission. The procedures detail pre-voyage information, pre-landing information, landings, the boot washing station for use between landings and preparing for the "next" landing.

9. Site Selection Criteria

This guideline has been adopted by IAATO since 1996 and provides a checklist for expedition leaders and or those involved in itinerary planning and decision-making. Copies can be obtained from IAATO.

10. IAATO Site Specific Guidelines

IAATO is compiling a list of Site Specific Guidelines for the top 10 landing sites in the Antarctic Peninsula. This work in progress will be circulated in draft form when completed.

11. IAATO Bylaws

IAATO Bylaws dictate the structure of IAATO but also clearly identify operating criteria: For example, 75% of all expedition staff must have Antarctic experience, 20:1 passenger to staff ratio, etc.

12. IAATO Pre-Season Checklist and (13) IAATO Annual Instructions provide for specific annual instructions given to all member companies who operate and or charter vessels. Instructions on radio use, reporting, coordinating landings so that no two ships are in the same place at the same time etc. are detailed. These instructions are tabled at each ATCM as part of IAATO's Annual Report.

14. EMER (Emergency Evacuation Response)

EMER is an IAATO-wide response plan-operating procedure that ship operators have in conjunction with IAATO member Adventure Network International to assist in medical evacuation response. In the past, non-members are invited to participate in

this plan. These procedures have been included in previous ATCM-IAATO Annual Reports.

Conclusion

The above-mentioned guidelines and or operational procedures have been established by IAATO in order to insure that each of the tour companies operate safe and environmentally responsible private-sector travel to the Antarctic. They can be amended if necessary but have proven to be effective management tools over the years.

Appendix A: IAATO Marine Wildlife Watching Guidelines



Appendix A

MARINE WILDLIFE WATCHING GUIDELINES (Whales & Dolphins, Seals and Seabirds) FOR VESSEL & ZODIAC OPERATIONS (Approved July 2002)

Introduction

The International Association of Antarctica Tour Operators (IAATO) has developed the following Wildlife Watching Guidelines to provide guidance to vessel operators while viewing cetaceans, seals, and birds in their marine environment. In addition these guidelines suggest additional ways to comply with Annex II (Conservation of Antarctic Fauna and Flora) of the Protocol on Environmental Protection to the Antarctic Treaty. The guidelines do not replace any domestic governmental laws, but provide an additional code of conduct to help reduce potential disturbance to the marine environment. Some countries have guidelines or regulations stricter than these, and which may override these guidelines. Violations may be punishable by fines, imprisonment and in extreme cases, seizure of vessel. Members/operators of IAATO should be aware that compliance with these guidelines might be insufficient to prevent violation of, and penalties resulting from, national laws and regulations.

Compliance with the International Regulations for Preventing Collisions at Sea has priority over these guidelines at all times.

A. These Guidelines are Intended for;

- Use by any vessels ... (e.g. ship, sail boat, yacht, Zodiac, kayak etc.), by the officers, crew, expedition staff and visitors involved in navigating in wildlife rich areas. (Note: The use of jet-skis, surfboards or windsurfers should not occur in areas of known wildlife.)
- Providing standard operating procedures in order to minimize wildlife disturbance.
- Protecting cetaceans, seals and seabirds and ensuring a maximum high quality wildlife watching experience by responsible observation. (Many passengers themselves are often highly concerned about the welfare of the wildlife and expect high standards of conduct by operators.)
- Avoiding harmful impacts on marine wildlife populations by ensuring that the normal patterns of daily and seasonal activity of the animals are maintained in the short and long term.

Competent, careful boat handling avoids harming wildlife and leads to better wildlife watching.

B. Possible Impacts from Vessels

Possible negative impacts from vessel operations include physical injury, interference or disruption of normal behaviour, increased stress, increased underwater noise and possibly increased exposure to predators. In addition animals could be exposed to increased levels of environmental contaminants such as oil from leaking outboard engines and discharged bilges.

The recommended guidelines will help minimize the level of potential disturbance and should prevent the following from occurring:

- ❑ Displacement from important feeding areas.
- ❑ Disruption of feeding.
- ❑ Disruption of reproductive and other social behaviours.
- ❑ Changes to regular migratory pathways to avoid human interaction zones.
- ❑ Stress from interaction.
- ❑ Injury.
- ❑ Increased mortality or decreased productivity/survivorship (and therefore population decline).

C. Approaching Marine Mammals and Recommended Distances-General Principles

The animal/s should dictate all encounters.

It is very important for vessel operators to be able to evaluate the animal's behavioural patterns. This can be difficult in practice and a good reason to have experienced naturalists onboard. The guidelines take into account the approach towards the animals, arrival at and departure from an optimal viewing area, and recommended distances from the animals.

Sometimes an animal will approach a vessel. If a marine mammal wants to interact it may remain with the vessel. The vessel can then drift passively. If the animal is moving away from the vessel it is choosing not to interact with or approach the vessel.

Take all care to avoid collisions. This may include stopping, slowing down, and/or steering away from the animal/s. Do not chase or pursue animals.

The following principles address vessels in general:

1. Cetaceans (Whales, Dolphins, Porpoises)

Cetaceans should never be approached directly head-on. Ideally they should be approached from slightly to the side and rear of the animal (see Figure 1).

Once travelling with the animal, travel parallel with it/them.

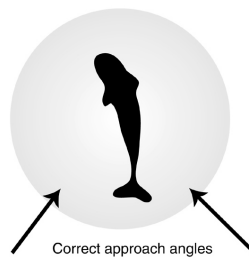


Figure 1.

1a. Vessels, Officers, Crew, Expedition Staff:

- Keep a good lookout forward (and ideally on the sides and from the stern) where cetaceans may be present.
- Always give the animals the benefit of the doubt.
- Avoid sudden change in speed and direction (including putting vessel in reverse).
- Avoid loud noises, including conversation, whistling, etc. Keep radios on a low volume setting.
- Should a vessel get closer than the recommended minimum distance, withdraw at a constant, slow, no-wake speed, to at least the recommended minimum distance.
- If animals approach the vessel, put engines in neutral and do not re-engage propulsion until they are observed well clear of your vessel. If the animals remain in a local area, and if it is safe to do so, you may shut off the vessel's engine. Some whales will approach a silent, stationary vessel.

(Note: Allowing a vessel to drift within accepted recommended distances could constitute an approach.)

1b. Recommended Minimum Approach Distances:

- No intentional approach within 30 meters or 100 feet for Zodiacs, 100 meters or 300 feet for ships (150m/500' if ship over 20,000 tons. 200m/600' if 2 ships present).
- Current International Regulations:
 Argentina & Brazil: 100m/300' with engines on. 50m/150' with engines off.
 South Africa: Licensed vessels only within 300m/1000'. No go zones e.g. Walker's Bay, Hermanus. Australia: 100m/300' whales 50m/150' dolphins
 New Zealand: 50m/150' No wake within 300m/1000'. (NB 200m/600' from Sperm and baleen whales with calves.) USA: 30m/100' except Alaska 100m/300' and all Northern Right Whales 500m/1500'. (Handheld range finders may prove useful.) Canada: 100m/300'.
- Helicopters or any aircraft should not approach closer than 300 meters or 1000 feet vertical distance. Helicopters are banned from over-flying cetaceans in Australian waters (minimum altitude 1000m/3000'). In New Zealand the minimum altitude is 150m/500'. Argentina 150m/500'. Alaska 500m/1500'. Aircraft should cease contact if the animals repeatedly dive or increase speed.

1c. Awareness of the Animal/s Behavioural Patterns Be aware of changes in behaviour of the animals.

- If the cetacean is agitated or no longer interested in staying near the vessel, the following behavioural changes may be observed:
 - ❑ The animal starts to leave the area.
 - ❑ Regular changes in direction or speed of swimming.
 - ❑ Hasty dives.
 - ❑ Changes in respiration patterns.
 - ❑ Increased time spent diving compared to time spent at the surface.
 - ❑ Changes in acoustic behaviour.
 - ❑ Certain surface behaviours such as tail slapping or trumpet blows.
 - ❑ Changes in travelling direction.
 - ❑ Repetitive diving.
 - ❑ General agitation.
- Do not stay with the animals too long. Suggested 15 minutes – 1 hour. If disturbance or change in behaviour occurs, retreat slowly and quietly.
- Never herd (circle), separate, scatter, or pursue a group of marine mammals, particularly mothers and young.
- If a cetacean approaches a vessel to bow-ride, vessels should not change course or speed suddenly. Do not enter a group of dolphins to encourage them to bow-ride.
- If a cetacean surfaces in the vicinity of your vessel, take all necessary precautions to avoid collisions. This may include stopping, slowing down, and/or steering away from the animal.
- Do not feed any wild animals. This includes throwing food or garbage in the water in the vicinity of them.
- Avoid touching or sudden movements that might startle the cetacean.
- If a cetacean comes close to shore or your boat, remain quiet.
- Playback of underwater sound of any kind should not occur. This includes recorded whale or dolphin sounds. By all means do use hydrophones to listen to the underwater sounds (usually an engines off situation, ideal for Zodiacs rather than ships). The sounds can be listened to on headphones/mini speakers and of course recorded. There are a number of sites on the Internet, which offer hydrophones for sale.

1d. When The Vessel Is In Sight Of Whales:

Approximately 3000 to 1500 meters/Two miles to one mile away

- ❑ Reduce speed to less than 10 knots.
- ❑ Post a dedicated lookout to assist the vessel operator in monitoring the location of all marine mammals.

1500 to 750 meters/One to one-half mile away

- ❑ Reduce speed to 5 knots.

Approximately 750 meters/Half a mile or closer

- ❑ Reduce speed to less than 5 knots.
- ❑ Manoeuvre vessel to avoid a head on approach.
- ❑ Avoid sudden gear changes (*i.e.*, into reverse).

1e. Close Approach Procedure for Vessels and/or Zodiacs:

Approximately 200 meters/600 feet or closer:

- ❑ Approach at no faster than ‘no-wake’ speed or at idle, whichever is slower.
- ❑ Approach the animal/s from parallel to and slightly to the rear (see Figure 1).

- ❑ Never attempt a head-on approach or from directly behind. Approach from behind and to one side at 4 or 8 o'clock to the whales heading 12 o'clock (see Figure 1).
- ❑ Stay well clear of feeding baleen whales.
- ❑ Try to position your vessel downwind of the animals to avoid engine fumes drifting over them.
- ❑ Communication between vessels and zodiacs in multi-vessel approaches should be established, to coordinate viewing and to ensure that you do not disturb or harass the animals.
- ❑ Do not 'box-in' cetaceans or cut off their travel or exit routes. This is particularly important when more than one vessel is present.
- ❑ Vessels should position themselves adjacent to each other to ensure the cetaceans have large open avenues to depart from if desired.
- ❑ Beware of local geography – never trap animals between the vessel and shore. Assess the presence of obstacles such as other vessels, structures, natural features, rocks and shoreline.
- ❑ *Remember: Avoid sudden or repeated changes in direction, speed or changing gears when close to marine mammals.*

1f. Close Approach Zone:

(Note: Ideally this should be no more than one vessel at a time)

Approximately 30 meters/100 feet for Zodiacs/ 100 meters/300 feet for ships.

- ❑ When stopping to watch cetaceans, put your engines in neutral and allow the motor to idle without turning off; or allow the motor to idle for a minute or two before turning off. This prevents abrupt changes in noise that can startle the animals.
- ❑ Avoid excess engine use, gear changes, manoeuvring or backing up to the animals. These produce sudden, large changes in underwater noise levels, which may startle, agitate or drive the animals away.
- ❑ Avoid the use of bow or stern lateral thrusters to maintain position. Thrusters can produce intensive cavitations (air bubble implosion) underwater.
- ❑ Be aware that whales may surface in unexpected locations.
- ❑ Breaching, tail-lobbing or flipper slapping whales may be socialising and may not be aware of boats. Keep your distance.
- ❑ Feeding humpback whales often emit sub-surface bubbles before rising to feed at the surface. Avoid these light green bubble patches.
- ❑ Emitting periodic noise may help whales know your location and avoid whale and boat collisions. For example, if your Zodiac engine is not running, occasionally tap on the engine casing with a hard object (not your radio!)
- ❑ If cetaceans approach within 30 meters or 100 feet of your vessel, put engines in neutral and do not re-engage propulsion until they are observed clear of harm's way from your vessel. On rare occasions, whales have been seen to use ships as 'backscratchers', remain drifting.
- ❑ Stay quiet (turn that radio down) and restrict passenger movement in Zodiacs during close encounters.
- ❑ Enjoy the experience.

1g. Departure Procedures:

- ❑ Move off at a slow ‘no-wake’ speed to the minimum distance of the close approach zone. Avoid engaging propellers within the minimum approach distance if possible.
- ❑ Always move away from the animals to their rear, *i.e.*, not in front of them.
- ❑ Do not chase or pursue ‘departing’ animals.

1h. Swimming with Cetaceans:

Swimmers should stay at least 30 meters / 100 feet from wild animals (it’s up to the animal to come closer). Human and animal safety cannot be guaranteed and great caution should be exercised. If in doubt, retreat. Cetaceans and seals can occasionally be aggressive and attack. Operators may want clients to sign a special waiver before entering the water for any potential encounter. Ongoing research into the subject is continuing, see www.wdcs.org for more information and updates.

- Swim or snorkelling only. No Scuba (except supervised ice diving). Do not enter the water within 30m/100’ of the animals or dive or jump in. Swim with gentle, quiet movements. Approach animals from the side and rear. Do not swim with calves of the year or pods with calves of the year. Vessels to maintain their normal distances.
- Argentina: No swimming with cetaceans. New Zealand: No swimming with whales. Brazil: no swimming within 50m/100’ of cetaceans.

2. Seals

2a. General Guidelines:

Seals hauled out on land, rock or ice are sensitive to boats and human presence. Noises, smells and sights may elicit a reaction. When observing seals in water, please apply similar principles as outlined for cetaceans. On land, be aware of seal behaviour that indicates a seal has been disturbed.

- When viewing seals on ice or land, do not surround or separate them, especially mothers and pups. Stay on the side where they can see you.
- On beaches, avoid getting between seals and the sea, walk ‘above’ them.
- Try not to break their horizon.
- Do not feed them.
- Pups are often left alone when the mother is feeding. They are not abandoned and should be left alone and not touched.
- Keep commentary, conversation and engine noise to a minimum.
- Be aware of your radio volume.
- Any seal response other than a raised head should be avoided.
 - ❑ Beware head raised and moving (open mouth in defense posture for Leopard Seal on ice, or Elephant Seal on land).
 - ❑ If a seal dives, you should retreat.
 - ❑ If a herd moves towards the water or there is a hurried entry into the water by many individuals, you should retreat.

Suggested minimum distances ashore 5- 10 meters (25 meters from jousting bulls)
New Zealand: 5 meters. Beware of animals in Tussock Grass areas, ideally staff member should lead, carrying walking stick or equivalent.

2b. Swimming with seals.

The suggestions for cetaceans apply. See 1h.

3. Seabirds

3a. General Guidelines:

- ❑ Birds such as penguins may be subject to disturbance by Zodiac operations close to landings or colonies.
- ❑ Approach or depart a landing or colony slowly to minimize any disturbance.
- ❑ Staff/crew should assess the best landing point – ideally as far from the birds as possible. This is particularly important if birds are moulting near the shore.
- ❑ Avoid blocking ‘walkways’ in colonies and water entry and exit points. Avoid boat operations in water where birds enter and exit, are bathing, or are feeding close to colonies.
- ❑ Be aware of birds in the water and slow down and/or alter course to avoid any collision.

Sometimes spectacular concentrations of seabirds may be found out at sea, rafts of birds either feeding on the surface, or diving from it, or simply resting and bathing. Many of these birds may have flown hundreds if not thousands of miles, often to find food for their young.

- ❑ Stay on the fringes of these concentrations. Ships should stay away 100 meters and Zodiacs 30 meters.
- ❑ There may be occasions when swimming penguins find themselves in a Zodiac when they ‘porpoise’, landing on the deck. Occupants should remain quiet and wait for the penguin to find its own way over the side and return to the water, normally by jumping onto the anchor box or pontoon. It is normally not necessary to assist.

The same advice applies to ‘feeding frenzies’, which may involve species diving from the air into and under the surface of the sea.

- ❑ Some seabirds may be attracted to drifting vessels.
- ❑ Under no circumstances should ‘chumming’ (depositing fish guts or oil) occur to attract birds.
- ❑ Never feed wild birds.
- ❑ Ashore, keep 5-10 meters from nesting seabirds (10 meters from nesting, 25 meters from displaying Albatross on South Georgia). New Zealand allows approach to 5 meters.
- ❑ Take care in Tussock Grass where birds may be nesting, including in burrows under bare earth.
- ❑ If skuas (Jaegers) or terns start dive-bombing they are protecting young or nests. Retreat in the direction you approached from.

4. Entanglement and Strandings

- ❑ Any animals entangled in fishing equipment etc should be assisted where possible. Please use experienced staff/crew for these situations.
- ❑ Photographs of the entanglement should be taken. Please complete a report and send it to IAATO.

- Should you not be able to assist, please record details including Lat and Long, species, and type of entanglement. Please report the event as soon as possible, so assistance may be sought from other vessels that may have experienced staff.
- Details of dead (floating) cetaceans and ‘strandings’ (beached) animals should be recorded. Where possible, please take photographs recording the front, and side of the head of the animal (for species identification). Please include a scale of measurement, e.g., a ruler or zodiac paddle) in the photographs.

5. Identification and Data Collection:

Identifying, and in many cases recording species, for trip-log purposes is part of most onboard naturalist’s remit. Logs, which include this data and the Latitude & Longitude of sightings, species identification and any additional information such as identification photographs taken, are of immense value. Please send copies to the IAATO Secretariat (www.iaato.org).

Helpful Hints!

- Reducing Pollution from engines

In all close wildlife encounters please ensure you are using ‘clean running’ engines, especially Zodiacs, and are creating minimum air and water pollution (e.g., light oil spills on the sea).

- Viewing Marine Animals

Polarizing sunglasses can considerably enhance viewing of submerged/partially submerged marine mammals in water.

- Encourage the use of binoculars for viewing marine mammals and seabirds.

The following Field Guides are Helpful Tools

- *Cetaceans: Whales, Dolphins and Porpoises* by Carwardine & Camm 1995
- *Seals: The Sierra Club Handbook of Seals* by Leatherwood et al 1982
- *Seabirds: An identification guide* by Harrison 1985
- *All marine life: Sea life - A guide to the Marine Environment* by Waller et al. 1996
- *Guide to Marine Mammals of the World* by Reeves, Stewart, Clapham, Powell and Folkens, 2002

Acknowledgements

Biologists and expedition staff who have worked many seasons in Antarctica and after consulting the following compiled these Marine Animal Watching Guidelines:

- Whale watching regulations (as of 24/10/01):
- Argentina Law 2381/84
- Brazil IBAMA Edict 117 1996
- Australia ANZECC Australian National Guidelines for Cetacean Observation.2000
- New Zealand Marine Mammals Protection Regulations 1992
- USA National Marine Fisheries Service Whale Watching Guidelines 1997

*Note: Vessel officers and staff should be aware of the full current regulations in place, in their respective operating areas.