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IAATO Site Specific Guidelines 2003 in the Antarctic Peninsula Further Addressing Potential Cumulative Impacts

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Submitted by the INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATORS (IAATO)

IAATO Site Specific Guidelines 2003 in the Antarctic Peninsula Further Addressing Potential Cumulative Impacts

Introduction

Recent years have seen an increase in the number of visitors to the Antarctic Peninsula, the number of sites visited, and the frequency of landings being made, particularly at the most popular visitor sites. The Protocol on Environmental Protection to the Antarctic Treaty, in force since 1998, has focused interest on the potential environmental impacts of human activity in Antarctica. In addition the International Association of Antarctica Tour Operators (IAATO) workshop at Airlie Conference Center in 1996 and the Cumulative Impacts workshop sponsored by the IAATO, United States National Science Foundation and United States Environmental Protection Agency, held in June 2000 in San Diego, USA sought to understand, identify and examine the potential cumulative impacts of tourism in Antarctica. This report is available on line and hard copy and was referenced in papers submitted to ATCM XXIV IP 52. Most concerned parties agree that identifying and measuring cumulative impacts is a daunting challenge.

The Antarctic ecosystem is by no means simple or linear. Change is constant. It occurs naturally and may in some way or may not be connected to human activity. As is clear in examinations of both climate change and the thinning of the Ozone layer, human activities far outside the Treaty area can and do influence the Antarctic. Polar ecosystems have natural biological and physical fluctuations that must be considered when analyzing impacts. (ATCM XXIV IP 52).

For over a decade IAATO has been proactive in developing procedures for minimizing acute, immediate human environmental impacts, chiefly through the promulgation of Visitor's Guidelines. Tour companies implemented an earlier version of Antarctic Visitor guidelines in the late 1980's. In 1991 IAATO was formed and these guidelines became mandatory and binding for all members. In 1994 these same guidelines were used as the core for developing Recommendation XVIII-1. IAATO's original guidelines in some respects are stricter than Recommendation XVIII-1 (e.g. 5 meters, 15 feet from penguins etc).

Nevertheless these guidelines alone are only part of a wider strategic approach to minimizing impacts. IAATO's operational procedures and additional guidelines developed over the last 13 years have complimented Recommendation XVIII-1 and have strengthened the industry's ability to minimize environmental impacts.

Guidelines and Operating Procedures: A Strategic Approach

For 13 years IAATO has developed a sensible strategic approach in order to address the growing tourism industry and potential environmental impacts. IAATO provided the following list in the detailed paper put forward to ATCM XXV IP72 (Guidelines for Tourist Operations in Antarctica) whereby a total of 14 operating guidelines/procedures were outlined. These guidelines and procedures are mandatory for IAATO members conducting the relevant activities. Additional procedures were agreed to in May 2003 at IAATO's general Meeting and noted below.

- (1) Recommendation XVIII-1; Guidance for Visitors to the Antarctic and Guidance for those Organising and Conducting Tourism and Non-Governmental Activities in the Antarctic
- (2) Marine Wildlife Watching Guidelines
- (3) Helicopter Operation Guidelines
- (4) Zodiac or RIB Operation Guidelines
- (5) Underwater Remotely Operated Vehicle (ROV) Guidelines
- (6) Specialized Adventure Activities (skiing, mountaineering, kayaking and scuba/snorkeling/diving and camping)-Guidelines have been developed by companies offering these activities.
- (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)
- (15) Emergency Contingency Planning
- (16) Ship Scheduling and Exchange of Itinerary Information-updated plan

Each <u>experienced</u> expedition team have site-specific briefing information, which has been developed and shared with other expeditions leaders and staff over the years. Instructions are given to passengers, staff and crew going ashore and much of the information presented is based on best practices.

Environmental Protection

IAATO has a number of limitations in place in order to ensure that its members practice safe and environmentally sound tourism. IAATO has required that:

- 75% of the expedition staff are to have Antarctic or related experience,
- The Captain and or Ice Master must have previous Antarctic experience,
- One tour guide must be ashore for every 20 passengers ashore at any landing site,
- No more than one ship at one landing site at one time,
- Expedition leaders exchange itineraries on a regular basis so as to avoid two ships converging on a site simultaneously,
- No more than 100 passengers plus expedition staff may be ashore at any site at any one time,
- Boots, clothing and equipment are carefully washed to avoid transmission of biological agents from one site to another,
- Adherence to site specific guidelines

While all these measures have been very effective, most of them were initiated when the face of Antarctic tourism was limited to smaller expedition vessels landing tourists carrying less than 200 passengers. Although small expedition vessels still comprise the majority of the Antarctic fleet, they could be displaced in terms of overall numbers carried by two categories of larger vessels:

- Vessels carrying over 500 passengers-which are not permitted to land tourists under IAATO's Bylaws
- Vessels carrying 200-500 passengers who intend to make landings

IAATO Bylaws specify that ships in the latter category be subject to "stringent restrictions on landing activities of time and place." Therefore IAATO has established site-specific guidelines to address the foreseeable growth in the tourism industry. The Site Guidelines listed in the following chart supports the reasoning behind the change in membership categories in IAATO Bylaws implemented in 2001.

Site Guidelines

Over 165 sites in the Antarctic Peninsula region have hosted tourist visits. For many sites, the rate of visitation is at present so low that the existing framework in Recommendation XVIII-1 (Guidance for Visitors to the Antarctic and Guidance for those Organising and Conducting Tourism and Non-Governmental Activities), IAATO Bylaws and operating procedures are more than sufficient to ensure protection, and compliance with the Environmental Protocol.

In the definitive paper, 'Zodiac landings by tourist ships in the Antarctic Peninsula Region, 1989-99', Naveen et al 2001 make the observations that "overall numbers of visitors and tour ships are less important than: where visitors make landings; how many visitors go ashore during zodiac landings; and how frequently zodiac landings occur.

The top ten most visited sites between 1989-99 received 55% of all zodiac landings made in the region; the top twenty sites accounted for 75% of all landings."

IAATO has prepared initial site guidelines for 33 of the most popular visitor sites in the Antarctic Peninsula (shown in the chart below.) Each is given an environmental sensitivity rating of Low, Medium or High. The basic reasons for ranking sites focus on species diversity, potential impact to flora and fauna, and the amount of space available for visitors to walk around in. Categories of ships allowed to visit each site are listed, along with site-specific environmental sensitivities and recommendations. Category 1 expedition ships are those that carry less than 200 passengers and Category 2 are ships that carry between 200-500 passengers. Both categories 1 and 2 land passengers ashore.

Conclusion

As we learn more about certain sites, or as physical and or biological changes take place at these sites or surrounding areas, the recommendations in the spreadsheet may change. In every case the recommendations are based upon the authors' combined 50+ years field experience in the Antarctic Peninsula, and in consultation with the scientific community, experienced naturalists, expedition staff and others. Thus, the following chart is not intended to be a "final" document; rather it is a work-in-progress that will be implemented for the forthcoming 2003-2004 season. Further as Management Plans are implemented in areas such as Deception Island, IAATO's site guidelines will be reviewed, and changed if necessary to incorporate recommendations set forth in such management plans.

Tourism to date has no significant environmental impact on any of the sites or the Antarctic ecosystem. Rather the contrary, all landing sites show very little sign of human impact considering the overall numbers of tourists that have visited the Antarctic. Nevertheless IAATO has simply taken the precautionary approach, in the interest of environmental sensitivity.

IAATO would like to urge Antarctic Treaty Parties who have responsibility for permitting or assessing non-member tour companies through Advance Notification and the required environmental impact assessments, to implement the use of these guideline and to encourage commercial tour operators to become members of IAATO.

Site	Latitude/Longtitude	Sensitivity	Reason	Category	Recommendations
Whalers Bay	62 59 S 060 34 W	Low	Easy movement.	1+2	Remain on the seaward side of the station remains, the old waterboats, and the piles of barrel staves.
					When walking north of the station remains, do not go beyond the old airplane hangar in order to avoid entry into ASPA 140E.
					Do not enter buildings or sit on the boats.
					Approach oil and fuel tanks with caution, keeping in mind that the foundations are vulnerable to erosion and potential collapse of the tanks.
					Be aware of flying debris in windy conditions.
					Hikers visiting Neptune's Window should be careful to avoid areas of loose soil and scree around the lip of the Window to prevent erosion. Proceed along the beach in front of the waterboats, then up the slope towards the Window in single-file, using pre-existing tracks when visible. The return route should be the same. Do not attempt to traverse the scree slope towards the south.
					Hikers visiting Baily Head should begin up the drainage channels adjacent to Neptune's Window. Follow the drainage uphill but stay left and high during the ascent. Once at the viewpoint of the outside of the caldera, continue northeastwards towards Baily Head, staying on the higher contour lines. When descending to the beach at Baily Head, take care not to disturb penguin-nesting activities.
Cuverville Island	64 41 S 062 38 W	Low early season	Easy movement around breeding groups.	1+2	Beware remains of old whaler's dam
Cuverville Island	64 41 S 062 38 W	Medium late season	Restricted movement among molting birds.		Be extra sensitive when hiking above fist plateau behind landing beach-Skua nests, moss beds
Jougla Point	64 50 S 063 30 W	Low/Medium	Restricted movement.	1+2	Be extra sensitive to nesting shags-stay 10 meters away
Hannah Point	62 39 S 060 37 W	High	Species diversity. Restricted movement.	1	Keep tourists in controlled, guided groups of 20 Stay off of high ground where Southern Giant Petrels nest
Petermann Island	65 10 S 064 10 W	Medium	Caution required in path selection.	1	
Half Moon Island	62 36 S 059 55 W	Low / Medium	Caution required in path selection, depending on tern sites.	1+2	

Site	Latitude/Longtitude	Sensitivity	Reason	Category	Recommendations
Pendulum Cove	62 56 S 060 36 W	Low	Minimal flora and fauna, unrestricted movement.	1+2	Beware Sensitive to nesting shags-stay 10 meters away. Stay clear of all scientific equipment
					Follow special instructions given by the expedition staff when entering the water, including staying within the authorized area.
					Wear proper attire including footwear when entering the water.
					Be careful not to enter ASPA 140D.
					Visits to the ruins of the Chilean station Pedro Aguirre Cerda are allowed for groups led by informed staff (or group leaders). Otherwise, visitors should stay below the berm at the beach.
					Staff (or group leaders) will lead groups on an established walking path to and from the ruins.
					Take caution to avoid areas of scattered construction materials (broken metals, etc.)
					Visitors should not go beyond 100 yards behind the station ruins to avoid unstable ground conditions.
Almirante Brown	64 54 S 062 52 W	Low	Minimal flora and fauna, unrestricted movement.	1+2	Be respectful of station
Paulet Island	63 35 S 055 47 W	High	Restricted movement Low tide visits recommended.	1	If visit occurs at high tide, no more than 50 passengers ashore at one time
					No hiking on loose scree slopes-rockslides danger and nesting Wilson's Petrels present
Neko Harbor	64 50 S 062 33 W	Low/Medium	Low tide permits easy movement.	1+2	Maintain safe distance from the glacier

Aitcho Island	62 24 S 059 47 W	8	Diverse flora and fauna/ caution required in path selection.	1	Stay off high ground where Southern Giant Petrels nest
Penguin Island	62 06 S 057 54 W	U	Diverse flora and fauna/ caution required in path selection.	1	Stay off of high ground where Southern Giant Petrels nest

Site	Latitude/Longtitude	Sensitivity	Reason	Category	Recommendations
Baily Head	62 58 S 060 30 W	Medium	Restricted movement.	1	Stay in the center of the amphitheatre and on the opposite side of the valley starting at the landing site in order to avoid Chinstrap Penguin nesting areas and traverse routes to and from the sea. Due to the threat of avalanches, visitors should maintain a safe distance away from the rock cliffs and the glacier front. Where there are densely nesting penguins, visitors should move slowly and walk around the perimeter of these areas. Hikers visiting Whalers Bay should walk up the amphitheater, then up the gully to the ridge. Avoid disturbing the penguins and do not walk through the penguin colony. Once on the ridge, stay high and walk along the side of the mountain until you reach the drainage area descending to Whalers Bay
Pleneau Island	65 06 S 064 04 W	Medium	Caution required in path selection around nesting terns.	1	Be sensitive to tern nesting sites
Telefon Bay	62 56 S 060 40 W	Low	Unrestricted movement.	1+2	Beware scientific monitoring equipment Exercise caution in the vicinity of the crater lip, and avoid areas of loose soil and scree to
Yankee Harbor	62 32 S 059 47 W	Low	Unrestricted movement.	1+2	prevent erosion.

Cape Lookout	61 16 S 055 12 W	_	Caution required in path selection, low tide essential.	1	
Mikkelsen Harbor	53 54 S 060 47 W	Medium	Restricted movement. Low tide visit preferable.	1	
Damoy Point	64 49 S 063 32 W	Low	Unrestricted movement.	1+2	
Point Wild	61 06 S 054 52 W	Medium/High	Very restricted movement.	_	If landing possible, recommend only 1 zodiac load at a time ashore for brief photo opportunity, 10 minutes each
Turret Point	62 05 S 057 55 W	Medium	Species diversity. Vegetation.	1	

Site	Latitude/Longtitude	Sensitivity	Reason	Category	Recommendations
Robert Point	62 28 S 059 23 W	Medium	Breeding Kelp Gulls.	1	
Devil Island	63 48 S 057 17 W	Medium	Restricted movement at High tide. Nesting Skuas.	1	Low tide visits recommended
Snow Hill Island	64 28 S 057 12 W	Low	No breeding wildlife.	1+2	
Gourdin Island	63 12 S 057 18 W	High	Species diversity. Restricted movement.		Very limited visitor space, only 50 tourists ashore at once
Hydrurga Rocks	64 08 S 061 37 W	Medium/High	Species diversity. Restricted movement.		Very limited visitor space, only 50 tourists ashore at once
Portal Point	64 30 S 061 46 W	Low	No breeding wildlife.	1+2	
Orne Island	64 40 S 062 40 W	Medium	Restricted movement. Breeding Skuas.	1	
Ronge Island	64 43 S 062 41 W	Medium	Restricted movement.	1	
Danco Island	64 44 S 062 37 W	Medium	Restricted movement.	1	
Yalour Islands	65 14 S 064 10 W	Medium	Restricted movement.		Very limited visitor space, only 50 tourists ashore at once. Zodiac tours possible for category 2
Prospect Point	66 01 S 065 21 W	Medium	Breeding Kelp Gulls.	1	