A decade of Antarctic tourism: Status, change, and actions needed
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Information paper submitted by ASOC to the XXXI ATCM, Kiev, 2-14 June 2008

ATCM Agenda Item 11 and CEP Agenda Item 6(b)

Summary
Tourism in Antarctica over the past decade has been characterised by steep annual increases, diversification, and geographic expansion. ASOC fears that tourism is becoming entrenched as the main Antarctic activity in terms of scale and influence, resulting inevitably in the erosion of the intrinsic values of Antarctica and the primary roles of science and environmental protection in the Antarctic Treaty System. The particularly negative forms of tourism currently emerging should be constrained before their scale is beyond the capacity of the Antarctic Treaty System to control them.

Given the growing complexity of tourism there is not a single specific action that Antarctic Treaty Parties should take to address the problems raised by tourism. Rather, there is a range of measures needed, some of them urgently. Antarctic Treaty Parties need to develop a vision for tourism in the Antarctic and to agree on a tourism strategy. Antarctic Treaty Parties should ensure that Measure 4 (2004) comes into force expeditiously, perhaps through "provisional application" analogous to Decision 2 (2003). The management of the most commonplace aspects of tourism should be improved building on the main existing environmental management tools – EIA, monitoring, and management plans – with major improvements required in all three areas.

1. Introduction
Tourism in Antarctica over the past decade has been characterised by steep annual increases, diversification, and geographic expansion. These developments have taken place in the absence of a comprehensive regime to manage tourism in the Antarctic Treaty Area. The regime that has developed has been mostly limited to local and technical fixes, given effect through voluntary guidelines. Even the limited tourism regulation that this provides has been reactive to tourism developments. Thus, to the extent that an Antarctic tourism regime can be discerned at all, it is largely provided by generically applicable Protocol standards, weakly supplemented by (with one exception) non-legally binding guidelines emanating from the Antarctic Treaty Consultative Meeting, and industry’s own voluntary standards.

In this paper we outline the status and change of tourism over the past decade; summarise ASOC’s concerns; and propose some specific steps that we believe are necessary to manage and control the growth of commercial Antarctic tourism over the next decade. In ASOC’s view, the status quo will lead only to disaster, both in the literal sense of accidents and the general sense of Antarctica’s intrinsic values being undermined.

2. Status and change of tourism 1997-2007
The key components of tourism development, and its change over the past decade, include:

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1 Lead authors R. Roura, A.D. Hemmings, and J. Barnes. ASOC thanks R. Werner Kinkelin for his contribution. ASOC presented an earlier version of this paper to the conference convened by the International Association of Antarctica Tour Operators (IAATO), “The Future of Antarctic Tourism”, Miami, USA, March 17-19, 2008.
2 Roura 2007. As noted by Cohen, “The [tourism] system is marked by a centrifugal tendency…as it constantly expands into new areas, whether in a spontaneous “organic” pattern as a result of some inner impetus or in a sponsored, induced form through the efforts of the national authorities or large-scale developers.” (1984, p382).
3 The 1991 Protocol on Environmental Protection to the Antarctic Treaty.
4 Measure 4 (2004), which has not yet entered into force.
1) Continuing increase of tourism resulting in tourist numbers doubling every few years – currently about five years. Other indicators – number of operators, ships, staff and crew – have increased too;\(^5\)

2) Establishment of what could aptly be called “mass tourism destinations” – i.e., locations that appear on most tourist itineraries, where hundreds or thousands of tourists land every season, representing a sizeable percentage of all landings that season. This results in tourism concentration in certain sites, and in certain regions.\(^6\) Many other sites are also subject to tourism use albeit less frequently;

3) Increasing penetration of the Antarctic – whilst the hot spot is still the northern Antarctic Peninsula, geographically the footprint of tourism is spreading, and inland penetration is increasing too;

4) Diversification of activities and greater development of activity-based tourism (rather than location-based tourism, where the focus of the visits are attractions such as wildlife or historic sites);\(^7\)

5) Emerging involvement of Parties as tour operators or providers of essential logistics;\(^8\)

6) Increasing evidence of linkages between tourism and sovereignty interests;

7) Shifts in the structure of the tourism industry, with some operating companies now owned by parent companies that are not traditional Antarctic operators, from which a range of consequences in relation to how Antarctic tourism is conducted and managed follow. These include the use of larger ships from the global cruise industry; use of flags of convenience; and resulting loss of effective control by Antarctic Treaty Parties; and

8) Higher probability of maritime incidents resulting from more ships operating in the area; and a number of actual incidents involving cruise ships. As larger, non-ice class ships enter the market, the potential environmental problems are compounded.\(^9\)

In the face of these developments the regulation of tourism has not been static. However, regulation has not kept pace with tourism developments. The key facts include:

1) There are now 21 Antarctic Treaty instruments addressing tourism, up from 11 ten years earlier (Table 1).\(^10\)

2) Environmental Impact Assessment (EIA) remains the only “gatekeeper” mechanism for overseeing access to Antarctica.\(^11\) EIAs for tourism operations are regularly filed. However, the effectiveness of EIA as applied to tourism is questionable.\(^12\)

3) Development of site-specific guidelines as a primary management tool at a number of sites frequently used for tourism purposes. ASOC has acknowledged the useful aspects of this approach while noting that such guidelines do not replace the need for a comprehensive tourism policy.\(^13\) Moreover, only a relatively small number of sites have any guidelines, and generally only a subset of environmental values are considered, such as birds and seals. The process of establishing them thus far leads to the conclusion that site-specific guidelines are as much about protecting access to the sites as about the protection of their intrinsic values.

4) Ongoing reluctance of Parties to take precautionary action in the context of lack of knowledge about direct, indirect and cumulative impacts of tourism, and absence of effective monitoring mechanisms at most tourist sites.

There are have been two positive initial steps towards a more effective regulation and management of tourism:

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\(^5\) Tourist numbers in 2006-07 more than doubled those of 2002-03 (based on tourism statistics from www.iaato.org). Other indices of this growth include a substantial increase in ship numbers, median ship size, and numbers of voyages conducted.

\(^6\) See for instance Argentina 2006, which describes the progressive concentration of tourism activities in one region of the Antarctic Peninsula between 1999-2000 and 2004-05.

\(^7\) These include camping, climbing, and marathons. Some activities (scuba diving, extended walks, kayaking) occupy some 5,000-15,000 tourists per annum (2006-07 data from www.iaato.com/statistics).

\(^8\) There are earlier precedents of state involvement in Antarctic tourism – commercial tourism began in the 1950s with the involvement of National Antarctic programs, although private operators have largely developed it since the 1970s; and a Party built one Antarctic hotel in the 1980s (see Table 2).

\(^9\) Bastmeijer and Roura 2008:209.

\(^10\) www.ats.aq


\(^12\) Hemmings and Roura 2003.

\(^13\) ASOC 2006a, 2007a.
1) Recognition by Antarctic Treaty Parties that some types of tourism are undesirable. Consequently, landing of passengers from ships carrying more than 500 passengers is discouraged by Resolution 4 (2007); and any tourism activities that may substantially contribute to the long-term degradation of the Antarctic environment and its dependent and associated ecosystems are discouraged by Resolution 5 (2007). In addition, it is apparent that the majority of Parties view the establishment of land-based tourism infrastructure as undesirable.

2) The declaratory position of IAATO that its members are committed not to have a “more than a minimum or transitory impact”, which presumably rules out certain forms of tourism that could have such impact.

Overall, the past decade has seen Antarctic tourism increase, expand and diversify; signals by the tourism industry and Antarctic Treaty parties that some types of tourism may not be desirable; and the establishment of additional guidelines on tourism that, while useful, are not legally binding. Tools available under the Protocol – EIA, specific duties in relation to fauna and flora, monitoring, avoidance of marine pollution and Protected Areas – are applied in varying degrees but their collective effectiveness as a tourism management mechanism has not been demonstrated.

3. Key concerns

ASOC has a range of concerns about the development of Antarctic tourism, which are outlined in our Information Papers, particularly those submitted to the last six ATCMs.14 These concerns include:

1) Further developments of land-based tourism, whether sponsored by private operators or governments.

2) Use of vessels of any size that lack the ice-strengthening and other characteristics needed to protect them under the difficult Antarctic conditions.

3) Use of very large vessels, many of which have not been built for navigation in Antarctic waters. Some of these vessels can carry helicopters, which are as yet unregulated and allow quick and rather deep penetration into pristine areas;

4) State-supported tourism, which creates a conflict of interest for the state concerned, may very well exacerbate existing difficulties around sovereignty positions, undercuts the reasonableness of constraining commercial operators, and in a consensus-based system makes agreement to sensible regulation of the industry harder;

5) Incidents or accidents with the potential for serious environmental consequences constitute a major concern, heightened by the MV Nordkapp grounding, and the evacuation and sinking of the MV Explorer, both of which resulted in the spillage of fuel;

6) The use of heavier grade fuel oils poses a serious risk to the environment and with the increasing use of larger vessels (where such fuel is more likely to be used) there is an increased risk. There is a compelling case for not allowing the use of such fuels in the Antarctic Treaty Area, which is now being addressed by the International Maritime Organization;

7) Increasing numbers of vessels and the use of larger vessels also increases the threat from the operational impacts of shipping including introduction of alien species through bio-fouling and ballast discharges, sewage and grey water discharges and air emissions;

8) The failure to bring into force the limited liability regime provided by Annex VI, adopted in 2005, means that a major tool in relation to environmental management is still lacking. While tourism is certainly not the only activity which might give rise to liability, the fact that in the event of environmental damage arising from the two recent tourism incidents we should not have been able to use this instrument is a significant failing. ATCPs should set an urgent near-term deadline for bringing Annex VI into force; and

9) Possibilities that the tourism industry will continue to grow outside the control of Antarctic Treaty Parties, as evidenced by the use of flags of convenience – which becomes more likely as larger conventional cruise liners (see 2 above), rather than dedicated polar vessels, are used in Antarctica.

10) The monitoring and assessment of cumulative impacts, and the application of EIA to tourism

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14 These documents are available on ASOC’s website, [www.asoc.org](http://www.asoc.org).
Some of these issues are further discussed below.

3.1. Land-based tourism

As tourism in Antarctica transforms from niche to mass tourism, the likelihood of tourism infrastructure ashore – and the positive feedback loop to further tourism expansion that this would usher in – increases.15 The problems associated with land-based tourism include:

1) Increased pressure on the Antarctic environment through expanded activity ‘footprint’;
2) The creation of platforms for further tourism penetration of the Antarctic continent;
3) Increased risk of competition with science at sites where tourism infrastructure has been established; and
4) Legal issues about ownership, property-rights and their transfer; jurisdiction and – behind it all – sovereignty issues. There is a regulatory gap here that needs to be closed off before any further poor precedents are set.

Table 2 identifies land-based facilities currently used to support, and/or manage tourism.16 Available data suggest a relative increase in the number of facilities, operators, and tourists since 1996.17

3.2. State supported tourism

Several Parties have taken specific action to support and/or manage tourism at their stations, former stations and other facilities. The boundaries between the different levels of involvement in tourism – from simply managing tourism visits to actually promoting such visits or enabling tourism operations – are not always clear, and information about what is actually taking place in Antarctica is not always forthcoming.

A 2006 inspection conducted by US observers, which inspected six permanent stations in the NW Antarctic Peninsula as well as several tour ships, reported:

“... in light of the central role of science in Antarctica, the Team found it curious that some stations (including ones not visited by the Team) seemed to be going out of their way to attract tourist vessels.”18

These developments take place in the context that the role of science in Antarctic bases still is not as high as it might be. The 2005 joint inspection conducted by UK, Australia and Peru, which visited numerous sites and facilities of different kinds in the Antarctic Peninsula, reported:

“Although some stations were undertaking world-class scientific research into a wide variety of disciplines... a larger number of stations appeared to have relatively modest, or even rudimentary, science facilities. This was particularly so when viewed against the substantial size of some stations’ infrastructure.”19

The concern is that Parties with relatively low scientific production and/or above average number of facilities may be compelled to run tourism operations for economic or other reasons – including potentially a perceived need to “keep up” with those Parties that already run tourism facilities of some sort.20

3.3. Antarctic shipping incidents

International shipping traffic has increased significantly in the Antarctic over the past decade both in terms of overall numbers and the different types of vessels operating in the area.21

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15 ASOC 2006b.
16 See also a compilation of non-governmentally operated permanent facilities and governmentally operated permanent facilities with a non-scientific primary purpose in Bastmeijer et al (2008); and IAATO (2008).
17 See ASOC and UNEP (2005), pp 5-6; and IAATO (2008), p 4.
18 USA 2006, p 11.
The increasing number of vessels, their concentrations in particular seasons and areas, and the fact that many are not ice-strengthened, raises a number of intrinsic environmental and marine safety issues, particularly given the extreme remoteness of the region, the plainly limited capacity ashore for support and succour in the event of serious misadventure, and the sensitivity of Antarctic ecosystems to both routine operations and catastrophic events. Plainly this problem does not involve solely tourism vessels, but nevertheless the tourism industry is a significant contributor to shipping in the Antarctic. Together these raise concerns about increased risks and cumulative impacts.

3.4. Cumulative impacts and tourism

One of the first serious discussions of cumulative impacts in Antarctica took place in 1996. At the time approximately 9,000 tourists visited the region. Several other meetings have taken place since, and progress has been made in a number of related issues, including identifying the potential cumulative impacts from ship-borne tourism. However, in practical terms, the issue of cumulative impacts remains as intractable as ever. Very few initiatives have been put into place to monitor cumulative impacts at sites frequently used for tourism landings (where, depending on the characteristics of the site and the way it is used now and in the past, tourism would be a greater or lesser contributor to cumulative impacts). We argue that the barriers are not so much conceptual or methodological as the lack of political will.

3.5. Environmental Impact Assessment (EIA) and tourism

The present approach to EIA evident across the tourism industry is of limited value, given the ‘light’ treatment of individual tourism expeditions, often in quite superficial multi-year Initial Environmental Evaluations (IEEs). Tourism EIAs hitherto have been IEEs or Preliminary Assessments, which often do not go into adequate detail about what is actually proposed, and frequently ignore or only poorly address cumulative impact.

A recent trend is the development of multi-year EIAs, which apply IEEs to a considerably more complex set of scenarios than anticipated for this level of assessment, and are even more perfunctory than stand-alone IEEs. EIAs for tourism operations tend to focus on routine activities, without taking into consideration the potential impact of accidents.

A case in point is the Antarctic cruise of the Golden Princess in the 2006/07 season – a 109000 tonnes vessel carrying 3700 people on board. In a letter to US officials ASOC argued that a CEE was the appropriate level for the EIA, in light of the scale of the proposed activity; the environmental consequences of its normal operations; the potential scale of impacts resulting from misadventure; the possible consequences for the interests of the broader Antarctic community; and the need for multi-national response in the event of any such misadventure (Appendix 1). However, the cruise proceeded on the bases of an IEE only.
4. Actions needed

Given the growing complexity of tourism there is not a single specific action that Antarctic Treaty Parties should take to address the problems raised by tourism. Rather, there is a range of measures needed. First and foremost, there is an urgent need for Antarctic Treaty Parties to develop a vision for tourism in the Antarctic and to agree on a tourism strategy. ASOC encourages Parties to start on this task at this ATCM.

In addition, there is a range of actions that seem realistic and that could address some of the most worrying tourism developments within a relatively short time frame. These actions are outlined below.

ASOC notes that the only legally binding instrument addressing tourism – Measure 4 (2004) ‘Insurance and contingency planning for tourism and nongovernmental activities in the Antarctic Treaty Area’ – has not yet entered into force. Therefore, one urgent step for Antarctic Treaty Parties is to ensure that Measure 4 (2004) comes into force expeditiously. One option is "provisional application" (with a precedent in Decision 2 (2003) in relation to Measure 1, 2003). Thus, the Parties could agree on a mechanism like that for management plans under Annex V. According to Rule 25 of the 2005 Revised Rules of Procedure:

26. Notwithstanding Rule 25, the Executive Secretary, immediately following the closure of the Consultative Meeting, shall notify all Consultative Parties of all Measures, Decisions and Resolutions taken and send them authenticated copies of the definitive texts in an appropriate language of the Meeting. In respect to a Measure adopted under the procedures of Article 6 or 8 of Annex V of the Protocol, the respective notification shall also include the time period for approval of that Measure.

That mechanism could be achieved via a Decision, which would be legally binding.

ASOC has noted that the particularly negative forms of tourism currently emerging should be constrained, which should be done before the scale of Antarctic tourism is beyond the capacity of the Antarctic Treaty System to control it. Specifi cally, ASOC urges Parties to:

1) Adopt a Resolution stating that it does not see unending growth of Antarctic tourism as desirable or necessary;
2) Work closely with IMO to develop appropriate ice-strengthening standards and classifications for the Southern Ocean, and to take other concrete steps with IMO bodies to protect the region.
3) Commence discussions on criteria and levels that will allow it to adopt a Measure at XXXI ATCM prohibiting vessels above a certain size (from which derives a certain quantity and type of fuel on board) and/or carrying more than a specified number of persons from operating within the Antarctic Treaty area; and
4) Commence discussions on mechanisms that will prevent the development of tourism infrastructure ashore – whether the establishment of new infrastructure, or the conversion of existing infrastructure – before pressures to do so becomes greater. In addition, infrastructure already used for tourism purposes should be subject of a critical review by Parties. If the ATCM waits until there is already substantial tourism infrastructure before commencing its consideration, the reality is that tourism will already be beyond its control.

In addition, the management of the most commonplace aspects of tourism should be improved. Some potentially useful mechanisms that build on the main existing tools (EIAs, monitoring, management plans for ASPAs and ASMAs, and site specific guidelines) include:

1) Use of site-specific EIAs for certain sites. EIAs could be conducted for sites for which site-specific guidelines are in place, which are among those under higher tourism pressure. This means that EIAs would be produced for activities taking place in a certain site rather than on the bases of a mobile activity that touches on a number of sites. Notwithstanding this approach, EIAs for the individual cruises should still be carried out;

ASOC 2007c.

31 “...sites that merit the development of specific guidelines would also benefit from the application of Annex I, so that an EIA is prepared on annual bases for those sites, including all planned activities there – plainly tourism, but also other activities.” ASOC 2007a.
2) Monitoring of cumulative impacts at all sites frequently used for tourism activities, complemented by precautionary management at sites that might be under excessive tourism pressure. Precautionary management may include, for instance, closing off a site temporarily for one or more seasons or for biologically sensitive periods;

3) Use of ASMA approaches to manage relatively large areas. This would enable, *inter alia*, to control the flow of tour vessels towards or away from certain sites; the opening up/closing off of some sites temporarily (i.e., for one, two or a few seasons); and generally provide an aid to managing tourism within discrete regions.

5. Closing remarks

Antarctic tourism is becoming a progressively more intricate issue, which includes an increasingly large number of actors, modalities, and specific areas of concern. There are complex interactions between tourism issues *per se* and broader environmental issues, and there is increasing “cross-pollination” between different actors, with some Antarctic operators acting as tour operators, and tour operators providing significant logistic support to National Antarctic Programs. In this regard, Antarctic tourism is not the unitary issue it may have been perhaps twenty or even ten years ago, but a conglomerate of overlapping issues. Using a thermodynamic analogy, it could be said that the entropy (or disorder) of the Antarctic tourism system is increasing. Plainly the complexities of regulating and managing this system are also increasing.

ASOC recognises the positive discussions and developments that have taken place in the context of the ATCM and of the industry itself, which have resulted in certain hortatory standards being adopted, and the one mandatory obligation not yet in force. However, these do not amount to a comprehensive tourism management regime, do not yet impose any legal obligations, have not curbed the trajectory of the industry, and have generally been reactive to tourism developments.

Overall, ASOC fears that tourism is becoming entrenched as the main Antarctic activity in terms of scale and influence, resulting inevitably in the erosion of the intrinsic values of Antarctica and the primary role of science and environmental protection in the Antarctic Treaty System. There is also reason to fear that the geopolitical stability of the Antarctic system will be severely stressed by unconstrained commercial activities (not limited to, but including, tourism). The connections between national positions in relation to tourism management and positions on sovereignty are already evident. In particular, there is a disturbing lack of clarity with regard to aspects of land-based tourism – what an IAATO representative described aptly as “fogginess”. It is not in the long-term interest of the objectives and principles of the Antarctic Treaty and its Protocol to see the Antarctic destabilised by commercial activity.

To prevent this, action is required from Antarctic Treaty Parties. In addition, the “responsible” sectors of the industry should unequivocally oppose the most negative forms of tourism now emerging and control acceptable forms of tourism so that its stated commitment not to have a “more than a minimum or transitory impact” becomes a reality. In ASOC’s view, Antarctica is not a theme park, but a region protected according to the basic principles of a World Park. Maintaining the integrity of that vision for future generations is essential.

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32 Who may practically conduct the monitoring would depend on site-specific circumstances. This is an issue that the CEP may wish to consider.

33 The intention here would be to use ASMAs as additional and supplementary tools, not as alternatives to ASPAs – which is a worrying trend in current Antarctic environmental management.

34 We have noted previously “It would seem that the spatial scale of site protection (in a broad context) would more appropriately begin at a strategic level – creating a broader regional system rather than building from individual sites.” ASOC 2007b, p3.

35 A term first used by Roura to describe his observations at Fildes Peninsula in 2006: “Overall, it is apparent that the operations of national programs and tour operators at Fildes Peninsula are closely interwoven, with a degree of “cross-pollination” Bastmeijer and Roura 2008, p198.

36 Hemmings 2007.

37 This was a term used by D Landau at the IAATO conference in Miami, March 17-19, 2008.

38 A term first applied to attitudes to Antarctica in Hemmings 1997.

39 A conception of Antarctica emerging from the 1972 World Parks Congress. The World Park Antarctica concept is based on the protection of the Antarctic wilderness values and wildlife; and in the maintenance of Antarctica as a zone of peace, free of all
6. References


ASOC (2006b): Strategic issues posed by commercial tourism in the Antarctic Treaty Area. XXIX ATCM IP 120.

ASOC (2007a): A commentary on policy issues arising from on-site review of guidelines for visitor sites in the Antarctic Peninsula. XXX ATCM IP 83.

ASOC (2007b): Strengthening the CEE process. XXX ATCM IP 84.


Weapons, and devoted to international scientific cooperation. ASOC has seen and described the Protocol as a useful first step towards realising a World Park in Antarctica.


Table 1 – Antarctic Treaty System instruments addressing Antarctic tourism

<table>
<thead>
<tr>
<th>ATCM / CEP</th>
<th>No.</th>
<th>Year</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV Santiago</td>
<td>Rec. 27</td>
<td>1968</td>
<td>Regulation of Antarctic Tourism</td>
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<tr>
<td>VI Tokyo</td>
<td>Rec. 7</td>
<td>1970</td>
<td>Regulation of Antarctic Tourism</td>
</tr>
<tr>
<td>VII Wellington</td>
<td>Rec. 4</td>
<td>1972</td>
<td>Effects of tourist activity</td>
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<tr>
<td>VIII Oslo</td>
<td>Rec. 9</td>
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<td>X Washington</td>
<td>Rec. 8</td>
<td>1979</td>
<td>Tourist Regulation</td>
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<tr>
<td>XI Buenos Aires</td>
<td>Rec. 3</td>
<td>1981</td>
<td>Mount Erebus declared a tomb</td>
</tr>
<tr>
<td>XIII Brussels</td>
<td>Rec. 3</td>
<td>1985</td>
<td>Timetable for the exchange of information</td>
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<tr>
<td>XVI Bonn</td>
<td>Rec. 13</td>
<td>1991</td>
<td>Intersessional meeting on tourism</td>
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<td>XVIII Kyoto</td>
<td>Rec. 1</td>
<td>1994</td>
<td>Guidelines for tourism</td>
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<td>XX Utrecht</td>
<td>R2</td>
<td>1996</td>
<td>Educational and cultural activities</td>
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<tr>
<td>XXI Christchurch</td>
<td>R3</td>
<td>1997</td>
<td>Tourism reporting form</td>
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<td>XXVI Madrid</td>
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<td>2001</td>
<td>Expert Meeting on tourism</td>
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<td>XXVII Capetown</td>
<td>M4</td>
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<td>Tourism and Non-Governmental activities</td>
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<td>XXVII Capetown</td>
<td>R4</td>
<td>2004</td>
<td>Tourist Guidelines</td>
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<tr>
<td>XXVIII Stockholm</td>
<td>R5</td>
<td>2005</td>
<td>Site Guidelines for Visitors</td>
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<td>XXVIII Stockholm</td>
<td>R6</td>
<td>2005</td>
<td>Post Visit Site Report Form</td>
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<td>XXIX Edinburgh</td>
<td>R2</td>
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<td>Site Guidelines for Visitors</td>
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<td>XXX New Delhi</td>
<td>R1</td>
<td>2007</td>
<td>Site Guidelines for Visitors</td>
</tr>
<tr>
<td>XXX New Delhi</td>
<td>R4</td>
<td>2007</td>
<td>Ship-based Tourism</td>
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<tr>
<td>XXX New Delhi</td>
<td>R5</td>
<td>2007</td>
<td>Long-term effects of tourism</td>
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<td>(Tourism in the Antarctic Treaty Area)</td>
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**Key:**
- **Rec.** Recommendation
- **R** Resolution
- **D** Decision
- **M** Measure
<table>
<thead>
<tr>
<th>Facility</th>
<th>Description</th>
<th>Operator</th>
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<tbody>
<tr>
<td>Adventure network International/ Antarctic Logistics and Expeditions base camp, Patriot Hills</td>
<td>Private land-based tourism facility established in 1985.</td>
<td>Companies registered in USA and Chile. 42</td>
</tr>
<tr>
<td>White desert</td>
<td>Private land-based tourism facility established ca. 2007.</td>
<td>Company registered in the United Kingdom and South Africa. Field operations run by nationals from these and other ATCPs. 43</td>
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<tr>
<td>Aerovías DAP “Container hotel”, Fildes Peninsula, King George Island</td>
<td>Private land-based accommodation and associated facilities in the Frei-Bellingshausen complex. 45</td>
<td>Company registered in Chile. 46 Field operations run by mostly Chilean nationals.</td>
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<tr>
<td>Hotel “Estrella Polar” at Marsh/Frei, Fildes Peninsula, King George Island</td>
<td>State-operated accommodation established in 1983. Formerly used for tourism accommodation, current status uncertain.</td>
<td>Chilean Air Force</td>
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<td>Artigas Base, Fildes Peninsula, King George Island</td>
<td>Visitor program at a national research station. 48</td>
<td>Uruguayan Antarctic Institute</td>
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<td>Airstrip at Marsh/Frei, Fildes Peninsula, King George Island</td>
<td>National program airstrip used for a range of purposes including landing of tourism aircraft. 59</td>
<td>Chilean Air Force</td>
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<tr>
<td>Port Lockroy, Goudier Island</td>
<td>Former year-round station designated as Historic Site and Monument 61, operating as a summer-only station and “living museum” since the late 1990s.</td>
<td>Formerly operated by the British Antarctic Survey; currently operated by the Antarctic Heritage Trust – UK. 50</td>
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<tr>
<td>Gabriel González Videla, Waterboat Point</td>
<td>Former station with two associated Historic Sites and Monuments (30 and 56) refurbished to receive tourism visits, including the establishment of a museum. 51</td>
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<td>Tourist Information Centre at Arctowski Station, King George Island</td>
<td>Tourism management facility and souvenir shop at Arctowski Station. 52</td>
<td>Polish Academy of Sciences</td>
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<tr>
<td>E-Base/Inspire Antarctic</td>
<td>Corporate-sponsored private land</td>
<td>British nationals “...in</td>
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40 This tentative list of land-based facilities currently used to support and/or manage Antarctic tourism was prepared on the basis of the best information available to the authors, including ATCM documents and field observations. It is clear that this list is not exhaustive. ASOC would welcome comments and corrections that could help to improve the list.

41 In addition to the facilities listed there, some national program facilities in Antarctica provide services such as postal services and commercial facilities (souvenir shops) that are also used by tourists.

42 Red de Aventura a la Antartica provides support services for ANI in Punta Arenas, Chile http://www.adventure-network.com; http://www.antarctic-logistics.com/. 43

43 UK-registered company with offices in London and Cape Town. Staff members are nationals from UK, Russia, South Africa, Norway, and Canada. www.white-desert.com.

44 This is one of several different names in which the island is known. See ASOC 2007d.

45 See also ASOC (2007d).

46 Chile-registered companies (Aerovías DAP and DAP Antarctica) with head office in Punta Arenas, Chile www.aeroviasdap.cl


48 Uruguay 2005

49 See for instance www.aeroviasdap.cl.

50 See for instance UK and Germany (1999), p 11

51 Chile (2007).

52 See for instance UK and Germany (1999), p 11.
<table>
<thead>
<tr>
<th>Facility</th>
<th>Description</th>
<th>Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expeditions, Bellingshausen Station, Fildes Peninsula, King George Island</td>
<td>Based facilities, composed by a building, a large tent and a Mongolian yurt, combining education activities with tourism targeted to corporate training.</td>
<td>Cooperation with the Russian Antarctic Division (sic)</td>
</tr>
<tr>
<td>“Eco Nelson”, Nelson Island</td>
<td>Private land based facility established in 1988. It has been occupied almost continuously since then.</td>
<td>Czech nationals</td>
</tr>
<tr>
<td>(Planned) museum, Esperanza Station, Hope Bay</td>
<td>The base, which is frequently visited by tourists, was converting one of its buildings into a museum in late 2006.</td>
<td>Argentine Army, in coordination with Argentina’s National Antarctic Directorate</td>
</tr>
</tbody>
</table>

53 Coca Cola Europe and UK’s Npower.
55 UK and others 2005, p.121.
56 In the early 1990s it was reported that the base was organised by an outfit called the Czech Antarctic Environment Program, which received 10-15% of its funding from the Czech government (Greenpeace 1994).
57 USA 2006, p35.
Appendix A

Letter sent by ASOC to USA’s National Science Foundation apropos of the proposed Golden Princess Antarctic cruise in the 2006/07 season, with copies to representatives of all ATCPs.

The Antarctic and Southern Ocean Coalition

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September 14, 2006

Dr. Karl Erb
Director
Office of Polar Programs
National Science Foundation
Wilson Boulevard
Arlington, Virginia 22230

By email: kerb@nsf.gov

Proposed Golden Princess Antarctic cruise in the 2006/07 season – Need for a Comprehensive Environmental Evaluation

Dear Dr. Erb,

You may be aware that the very large cruise liner Golden Princess, operated by US-based ‘Princess Cruises’, is advertised as visiting the Antarctic Peninsula as part of a 21-day cruise departing Rio de Janeiro and returning to Buenos Aires during the 2006/07 Antarctic summer. This appears to confirm preliminary information provided by IAATO in its IP 86 at the Edinburgh ATCM in June.

ASOC believes that a compelling case exists for the preparation of a Comprehensive Environmental Evaluation (CEE) of this proposal, since it may be likely to have a more than a minor or transitory impact, particularly in the event of misadventure. We understand that no EIA has as yet been received by the National Science Foundation.

Accordingly we ask through you that NSF, and other responsible US agencies, require the proponents to prepare a draft CEE in accordance with the Protocol on Environmental Protection to the Antarctic Treaty including Article 3, of its Annex I. The CEE should address the potential impacts of normal operation and misadventure.

We itemise below some significant aspects of the proposed activity:

- At 109,000 tonnes, the Golden Princess is by far the largest tourist vessel ever proposed for operation within the Antarctic Treaty Area. COMNAP has identified the largest national program vessel as 40,000 tons.\(^{58}\)

- The vessel is projected to carry a total of 3,700 persons. Its passenger capacity is 2,600 persons – although IAATO asserted at the Edinburgh meeting that it would ‘only’ carry 2,500 for this Antarctic voyage. It carries a further 1,200 crew. This is by far the largest number of persons ever carried into the Antarctic Treaty Area by a single vessel – and a substantial proportion of the total persons likely to be taken into the area by seaborne tourism in the 2006/07 season.

- The 3,700 persons aboard this single ship would substantially exceed COMNAP’s 2005 estimate of a peak summer population for all Antarctic national programs of 3,427 persons – a number distributed across some 37 year-round stations.\(^{59}\)

\(^{58}\) COMNAP Report to XXVIII ATCM. IP 122 (2005) para 5.

\(^{59}\) Ibid
The advertised itinerary for the *Golden Princess* suggests that the vessel would be within the Antarctic Treaty Area for around 6 days (about double the residence time of previous large-ship cruises). Its activity footprint, in terms of human residence time within the area, is 22,200 person-days.

The previous points indicate that the proposed cruise would constitute the single largest human activity in the Antarctic Treaty Area in the 2006/07 summer season.

The advertised itinerary, while not suggesting an intention to land passengers, includes activity close to a number of identified sites in the South Shetlands and northern Antarctic Peninsula:

- Elephant Island [South Shetland Islands]
- Esperanza Station [Argentine facility]
- Intercurrence Island [northern Christiania Islands group]
- Sigma Island [in the Melchior Islands]
- Deception Island [South Shetland Islands]

These areas include potentially vulnerable environments with high ecological values, where there is only patchy hydrographical charting.

The *Golden Princess* does not appear to be ice-strengthened.

The risks of misadventure with a vessel of this size, and carrying such an enormous number of people, pose particular questions and challenges. These include: the safety of the proposed activity; the capacity for search and rescue by the operator and others – including National Antarctic Programs; the potential environmental and other damage to established Antarctic values (including scientific values) resulting from any misadventure; and questions of legal liability pending the entry into force of Annex VI of the Protocol.

The *Golden Princess* is registered in Bermuda, which is not a party to either the Antarctic Treaty or the Protocol on Environmental Protection to the Antarctic Treaty.

The organisers are located in the United States and thus a legal basis for requiring an EIA exists under US domestic law. With the flag-state being a non Party to the Antarctic Treaty and Madrid Protocol, additional significance attaches to the EIA process.

The United States has indicated at recent Antarctic Treaty Consultative Meeting discussions of management of Antarctic tourism that it attaches particular significance to complete application of the Protocol, and the utilization of the EIA provisions mandated by Article 8 and Annex I of the Protocol.

Concerns about several of the issues noted above have been expressed by others, including Consultative Parties, at the XXIX ATCM.

In light of the scale of the proposed activity; the environmental consequences of its normal operations; the potential scale of impacts resulting from misadventure; the possible consequences for the interests of the broader Antarctic community; and the need for multi-national response in the event of any such misadventure, ASOC submits that a CEE is the appropriate level for the EIA.

Yours sincerely

James N. Barnes
ASOC Executive Director

cc:
Mr. Evan Bloom – Department of State – bloomet@state.gov